

# CLARK COUNTY, NEVADA EQUESTRIAN TRAILS STUDY

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## **ACKNOWLEDGEMENTS**

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## I. Introduction

The Clark County Equestrian Trail Study focuses on the four Rural Neighborhood Preservation (RNP) areas show at the right. The RNPs are areas that have been established to preserve a low density, rural feel in an increasingly urbanized region. Streets are built to a rural standard, without sidewalks and with few street lights. The area provides residents with open spaces and wide views of the surrounding mountains. The additional RNP zones in the NW and SW parts of the county are not part of this study.

## **Purpose**

An equestrian trail network in the RNP zones has long been a vision of some equestrians living in the Las Vegas Valley. County planners had been unable to verify the extent of the public demand beyond a few equestrian enthusiasts and needed to determine if there was indeed demand for an equestrian trail network. In addition, very little was known about the locations and numbers of horses within these RNP zones. If there was enough demand to justify the public investment in an equestrian trail system it was necessary to know where these horses are concentrated to put the trails in the best and most useful locations to serve them.



The purpose of the Clark County Equestrian Trail Study is two-fold:

- 1. Determine the need for equestrian trails by surveying the residents living in the RNPs and determine how many horses live in the RNPs and where they are located.
- 2. If there is a clear and demonstrated public demand for an equestrian trail network in the RNP areas, develop a trail plan that best meets the needs of equestrians, while taking into consideration road engineering, flood control facility requirements and public safety.

## **Approach**

Starting in the fall of 2006, Alta Planning + Design partnering with the Cannon Survey Center started the inventory and data gathering phase of the plan. This included:

- A telephone survey
- A field inventory of horse locations
- Review of existing documents relating to trails in the area
- Presentation of results to Clark County staff

Based on the demand for equestrian trails made evident from the inventory and data collection phase of the project, Alta Planning + Design started the next phase which included:

- Field inventory of possible equestrian trail alignments
- Stakeholder meetings
- Evaluation of possible equestrian trail alignments
- Public review of conceptual alignments
- Refinement of alignments
- Wayfinding and signage plan
- Cost estimates
- Draft Clark County Equestrian Trail Study
- Presentation of the draft study to the public
- Draft study revisions
- Completion of the Clark County Equestrian Trail Study

# **II.** Existing Conditions

## **Character of Study Area**

The RNP zones are a departure from what one will find in the rest of the urban area. The first distinctive characteristic is the lack of curbs, gutters and sidewalks on most of the streets. Many of the streets also remain unpaved. The rural character is further enhanced by the large lots surrounded by ranch style fencing or decorative block walls. Equestrians can be seen riding along the streets, co-existing with the rest of the community. Chickens, cows, dogs and other animals are not uncommon sights, however, horses are the dominant theme in the area. This can be seen in the art and sculpture found on the fences, in the yards and the mailboxes of the residents. The homes in the area vary in size, age, and style. There are simple small ranch style homes mixed among the larger two- and three-story homes.

The northern and southern RNPs do differ in some ways. The total area of the southern zones is about one-third of the area of the northern zone, but it is also much less dense. There are large expanses of land free of development in the southern zones and many of the roads are unimproved or do not yet exist. The northern zones are denser and have much more traditional suburban development encroaching into the RNP. In both the north and the south developers are buying land within the zones and building more suburban style development.

# Population Growth and Development

According to demographic data provided by The Clark County Department of Comprehensive Planning, the population of the Las Vegas Valley has increased significantly in the past 16 years, from 764,464 in 1990 to 1,847,495 in 2006. As the County grows, rural neighborhood preservation areas are annexed by the city of Las Vegas for more intense urban development, changing the character of the area as large parcels of land are subdivided for housing and other facilities.







## **Background Documents**

#### Enterprise Secondary Trails Plan, Lone Mountain Secondary Trails Plan

These documents were created to provide area-specific guidance for trails in the communities of Enterprise and Lone Mountain. Residents worked with city planners to develop recommendations for trail alignment as well as policy for the area. These plans have been updated by the Clark County Comprehensive Plan.

## Clark County Comprehensive Plan Trails Element

The Clark County Comprehensive Plan Trails Element was adopted by the Clark County Board of County Commissioners on October 18, 2005 to guide the development of off-street trails for non-motorized and equestrian users. The document gives specific recommendations for equestrian trails in Rural Neighborhood Preservation Areas. These specific policies include:

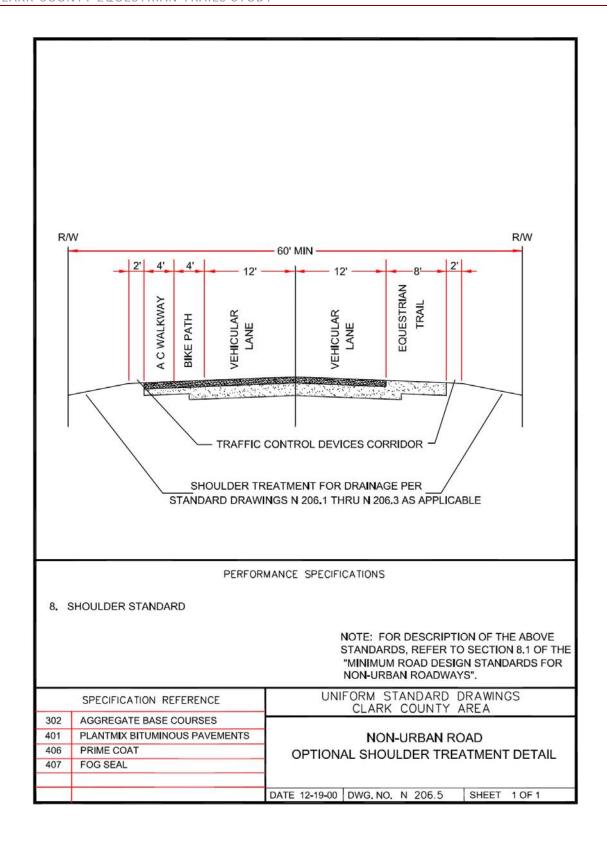
Policy Trl 2.9.1	Locate equestrian trails primarily in Rural Neighborhood Preservation areas.
Policy Trl 2.9.2	Develop appropriate linkages between equestrian trails in RNP areas.
Policy Trl 2.9.3	Develop linkages between equestrian trails and appropriate federal lands where trails have been designated for equestrian use and the equestrian trails are located within reasonable travel distance from federal lands.
Policy Trl 2.9.4	Encourage development of equestrian trails on streets built to rural standards and discourage development of equestrian trails on section or half-section line streets. County trails which would connect to trails in adjacent jurisdictions that are substantially complete or identified as priority trails, should be completed as practicable.
Policy Trl 2.9.5	Design equestrian trails with greater flexibility for location and design to minimize maintenance costs and avoid conflicts with grant funding requirements.
Policy Trl 2.9.6	When necessary, install stabilizing materials within equestrian trails to provide dust control and stabilize the surfaces adjacent to improved roadways.

#### Clark County, Nevada: Development Standards for Off-Street Trails

The Development for Off-Street Trails document provides policy guidance as well as design standards for off-street trails. It states that "Equestrian trails may be built within public ROW on roads currently developed to rural standards. These trails can be realigned if full street improvements are later required."

The following design guidelines are also included:

Standards	Equestrian Trail		
	Regional, Community, Neighborhood		
Trail ROW Width	15' - minimum		
Running Slope	5% - typical		
Surface	<ul> <li>PM10 non-attainment- Compliant aggregate</li> </ul>		
	<ul> <li>PM10 attainment- Type 2 gravel</li> </ul>		
	Suitable native soil		
Trail Width	5' - minimum (single tread)		
Cross Slope	2% (5% max.)		
Vertical Clearance	10' - along trail		
	12' - tunnels or under crossings		
	17' - along flood control facilities		
Horizontal Clearance	2' - min. clear zone each side of trail tread		
	3' - min. from obstacles		
Signage	<ul><li>User info trailheads and entry points</li></ul>		
	<ul><li>Markers/plaques for distance, direction, and</li></ul>		
	destinations as needed along route		
	<ul><li>Regulatory signs per MUTCD</li></ul>		
	<ul><li>Crosswalks and intersections</li></ul>		
Markings	None		
Lighting	<ul><li>Trailhead and entry points</li></ul>		
	<ul><li>Tunnels or under crossings</li></ul>		
	<ul> <li>At grade or bridge crossings</li> </ul>		
Handrails	N/A		
Railings or Fences	Highways, railroads, bridges, overpasses, flood control		
	facilities, adjacent private property		



# III. Surveys

The first phase of the study required confirmation of the equestrian needs in the RNPs. County planners had been receiving requests for equestrian facilities in the areas, but there was not enough information to determine the level of need or to justify the expense of implementation of these facilities.

Two surveys were used to make this determination.

## Telephone and Mail Survey

The first was a telephone survey, conducted by the Cannon Survey Center at the University of Nevada, Las Vegas from October 2006 to January 2007. The residents were asked about their feelings and preferences on a variety of topics including: the rural character of the RNPs, the need for equestrian trails and their long term plans for staying in the community. The entire survey instrument is included with the final survey report in Appendix A. Residents that were unable to be reached by telephone were mailed a paper copy of the survey instrument to complete and return. A total of 777 surveys were completed. The survey report details all aspects of the survey implementation and the results. Some of the key demographic findings of the respondents were:

- 30% were equestrians, 20% owned horses
- 78% had lived in the area 3 years or more
- 42% had been there 10 years or longer
- 70% plan on staying in the area

The preferences of the respondents were generally in favor of the equestrian trails regardless of whether or not they owned horses or participate in equestrian activities. Some of the key findings were:

- 67% indicated that equestrian facilities in the neighborhood are important
- 87% indicated that the rural character of the neighborhood is important
- 67% think that equestrian trails will add value to the neighborhood





- 69% indicated it is important to be able to see horses in the neighborhood
- 74% think public space dedicated for riding horses is important
- 74% think an equestrian trail network is important

## Field Survey

The second survey was a field survey to count horses and facilities for horses to help determine which locations had higher and lower concentrations of horses. These field visits were done on three different days in December of 2006 and January of 2007. Alta Planning + Design staff drove each road in each RNP area and looked at every tax lot in the study area. Each horse observed was recorded on a map. There were also many structures for keeping horses in the area. Each one of these was identified with a number indicating how many horses it appeared to be able house, regardless of the number of horses actually there at the time. The total number of horses and facilities was undercounted due to high block walls and other obstructions in the area. Some residents keep horses in their backyards and these also are not visible from the street. The following maps Horses Observed 1-3 and Horse Facilities 1-3 show the final results.

Given the difficulty of an accurate count, there are still a significant number of horses in all of the RNP zones. There were 581 horses counted in the northwest RNP zones with facilities seen for as many as 940. The southwest RNP areas cover much less area and 63 horses were counted with facilities seen for about 158. The highest concentration of horses is north of I-215 in the northern valley. 368 of the horses observed live in this area. The horse count maps show these locations.

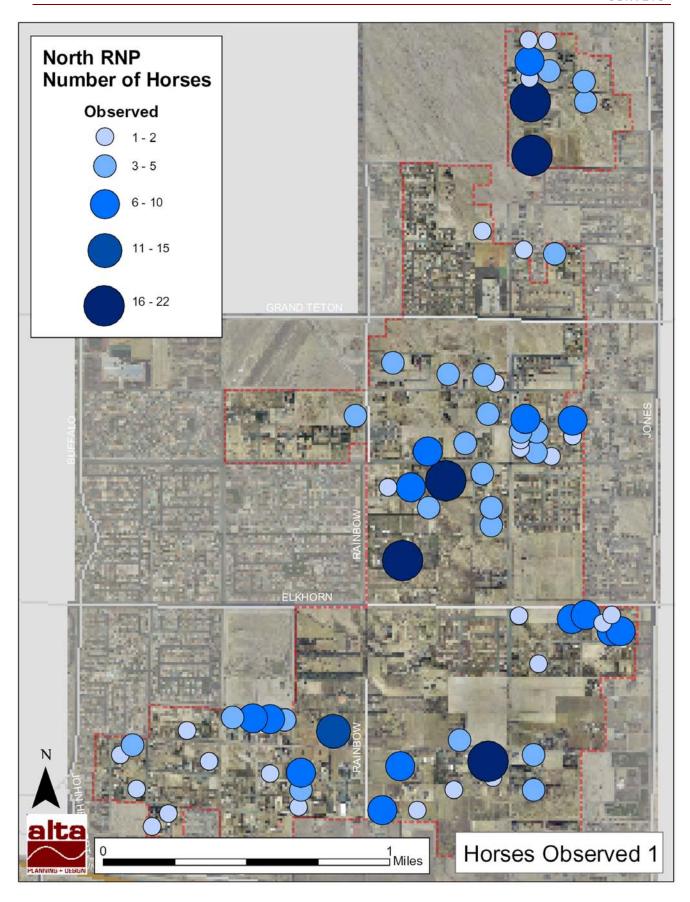




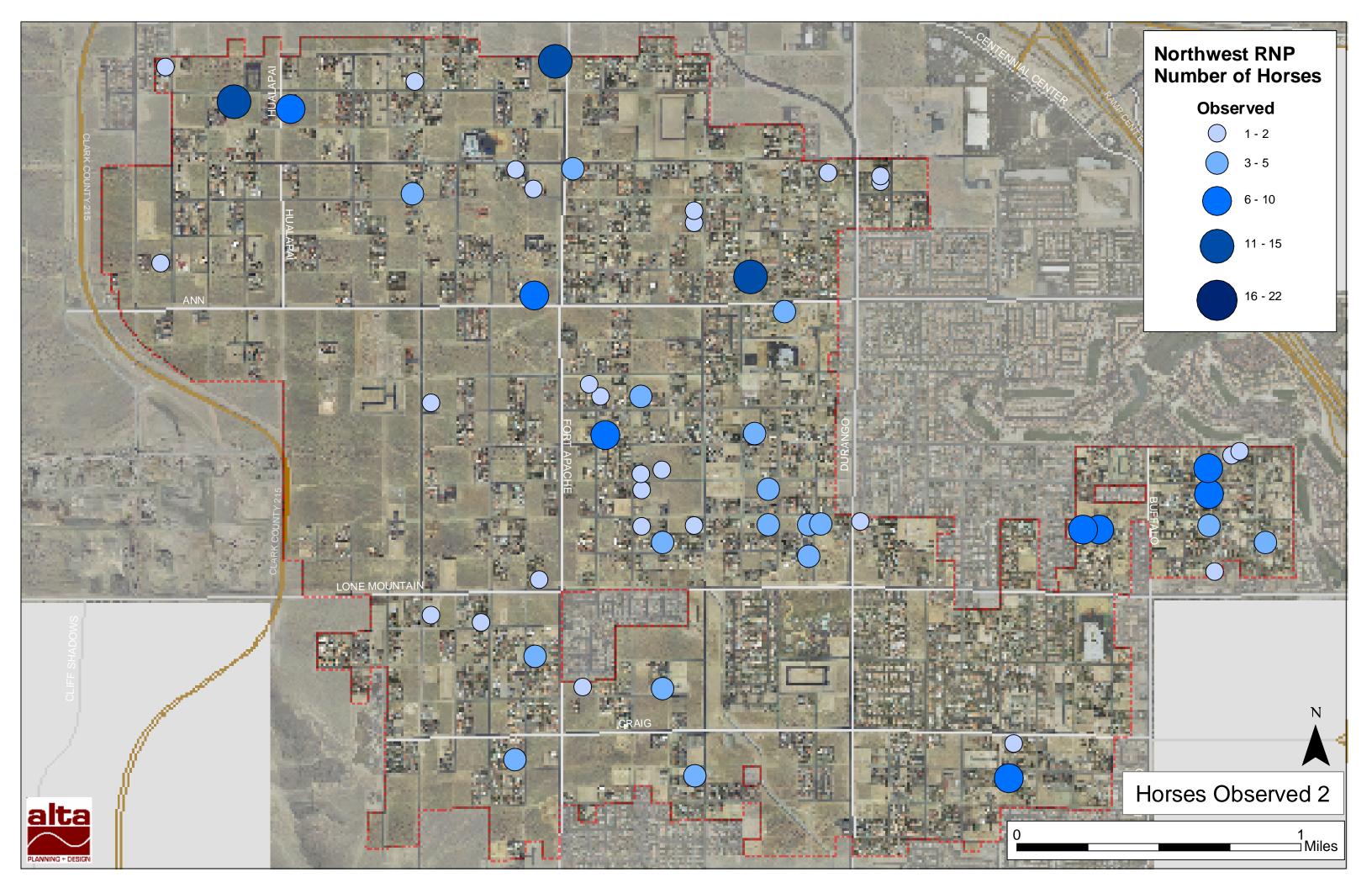


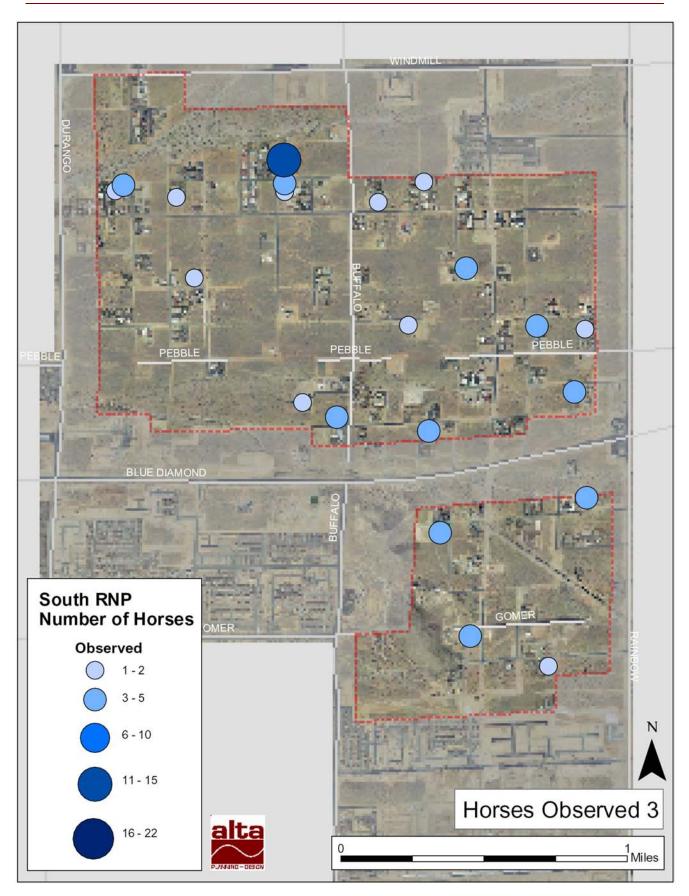
These maps were presented at a public meeting on February 21<sup>st</sup> 2007 and the RNP residents that attended the meeting were able to confirm that the locations were accurate for their horses but the quantities of horses counted were lower than the number of horses they actually kept on their property.

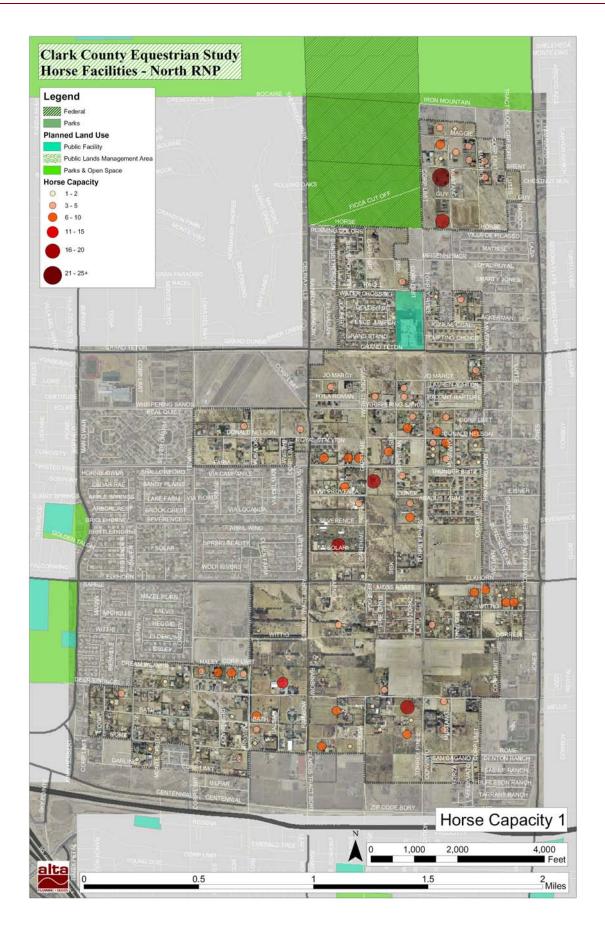
The combined results of both surveys shows a clear demand for equestrian facilities in these RNPs. After the county was presented with this information they gave the authorization to proceed with the next phase of the study.

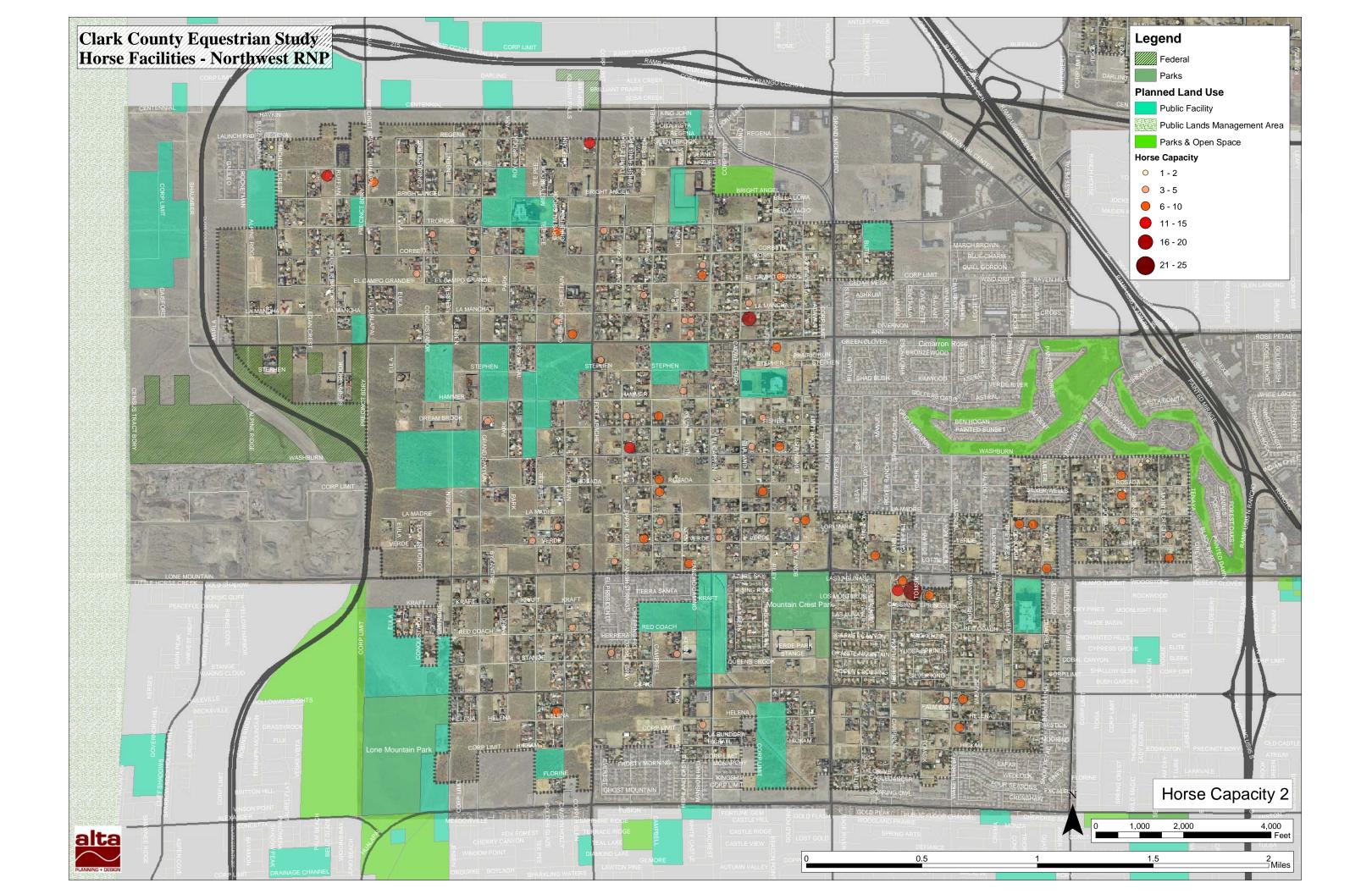


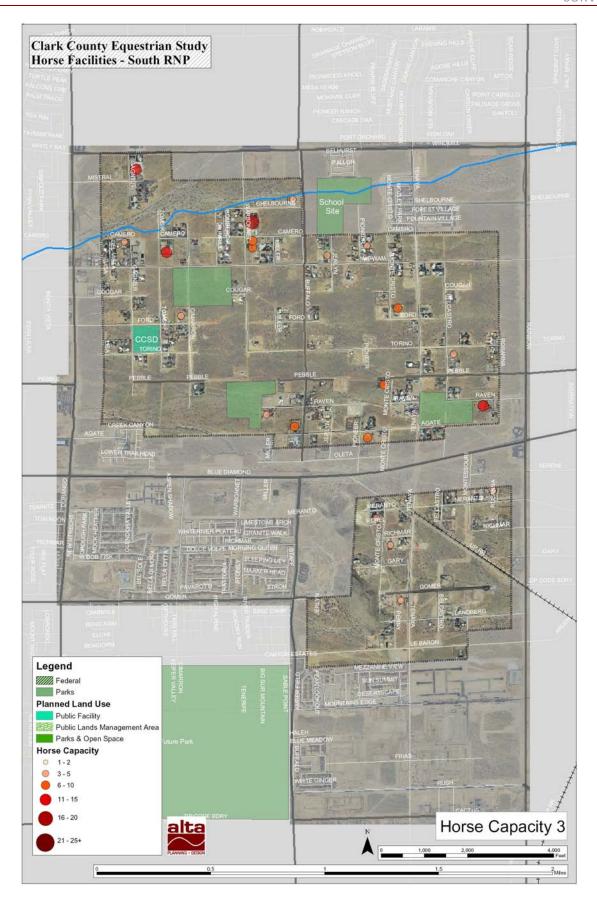
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# IV. Opportunities & Constraints

The opportunities and constraints are also mapped and can bee seen on the maps labeled Opportunities and Constraints. The following narrative explains each of the opportunities and constraints in detail.

### Constraints

#### Roads and Streets

The Clark County Department of Public Works indicated that all section line and ½ section line streets will be fully improved. This eliminates these streets from consideration for equestrian trail alignments. A few examples of these streets in the study areas are Lone Mountain, Durango, and Tenaya. The primary reason is to preserve the right-of-way for future capacity for automobiles and flood control facilities. In most cases, these are not streets that are desirable trail routes for equestrians.

## Crossings & Barriers

There are several major roadways in the study area that present challenges for the equestrian trail user. In the northern study area, I-215, the Centennial Freeway, runs along the perimeter of the area. Major arterial roadways are also difficult to cross. These include east/west streets Lone Mountain, Anne, Tropical Parkway, Centennial, Elkhorn, Grand Teton, Farm, and Craig. Streets running north/south include Jones, Buffalo, Durango, Ft. Apache, and Rainbow.

Fewer streets present difficulties in the southern study area, however Blue Diamond Road, Buffalo and Durango must be considered challenging crossings.



Blue Diamond Highway

## Flooding

Flooding is a serious concern for any trail in this area. All trails in flood zones or along flood control facilities must conform to special standards of design and construction. Care will need to be taken to ensure that a trail does not contribute to additional flooding hazards and will withstand flood events without the need for significant repair. The table on page 5 outlines the acceptable surface materials for trails within the right of way.

#### Dust

A dry climate and perpetual construction in the Las Vegas Valley makes dust a significant issue for residents. Any trail surface must meet the local dust control ordinances to prevent the trails from becoming sources of dust in the region.

## **Opportunities**

## **Origins**

Trail rides may begin from any location in the study area where horses live. There are many boarding facilities where residents from inside and outside the study area keep their horses. Some of these facilities care for up to 25 or more horses. These facilities will be locations for which easy trail access will be important. Not having to trailer their animals to a suitable riding facility will be a benefit for riders.



## Existing Linear Features

Other than the roads there are many other existing linear features in the RNPs that could be good trail alignments. In the south there is an existing wash that equestrians already use for recreational riding, a powerline corridor, and a railroad corridor. Each one of these presents a unique opportunity and may be considered as an option for a trail alignment. In the north there is a flood control facility called Gowan Drainage that provides an opportunity for an off street trail.



Gowan drainage

## Unpaved Roads

There are numerous unpaved roads in both RNPs. These provide excellent opportunities because the county already owns the right-of-way. Property conflicts can be avoided and, in the short term, horse and car conflicts will be minimal.

## Existing & Proposed Parks

Most parks are not designed with horses in mind, but they are not entirely incompatible uses. In the south RNPs there are four parcels identified as future parks. These parks could include some equestrian friendly amenities like hitching posts and water troughs. These can be nice places for horse and rider to rest. The locations of these parks must be considered when aligning a trail network. In the north there is Lone Mountain Park, just west of the study area, that will have designated trails and facilities for equestrians. There are additional parcels of public land that may

provide future opportunities as well. Just west of the southern RNP at Wigwam there is an equestrian trailhead planned and funded that will be built in the near future.

## **Existing Crossings**

Crossing high volume streets is very difficult on a horse and even more difficult if the crossing is not signalized or grade separated. Unfortunately, signals, bridges, and tunnels are very expensive. There are a few places where these items exist and should be considered when looking at trail alignments. All three of these are in the northwest area. The first is a bridge over I-215 at Alexander. This is outside of the study area but a key access point to federal lands to the west. There is another bridge across I-215 at Hualapai which leads to federal lands to the north. Last, there is a signalized crossing of I-215 at Ann Road. This crossing facilitates access to open public lands west of the City.

## **Existing Trails**

In the southern RNP there is a new equestrian trail leading southward to a future park and open public land. The trail begins at Buffalo and LeBaron. In the north a trail exists along Grand Teton. There are also many other trails just outside the study area that have been built within the City of Las Vegas. These are key connections to be considered when planning new trails.

#### Destinations

The current and future primary destinations for equestrians in the northern areas include Lone Mountain Park, Floyd Lamb State Park, Bradley Bridle Park, Red Rock Canyon National Conservation Area and other public lands outside the RNPs. In the south, the primary destination north of Blue Diamond Road is the wash west of Wigwam and Durango. This is the entry point to open areas on public lands to the west. The only destination south of Blue Diamond Road are the public lands to the south.



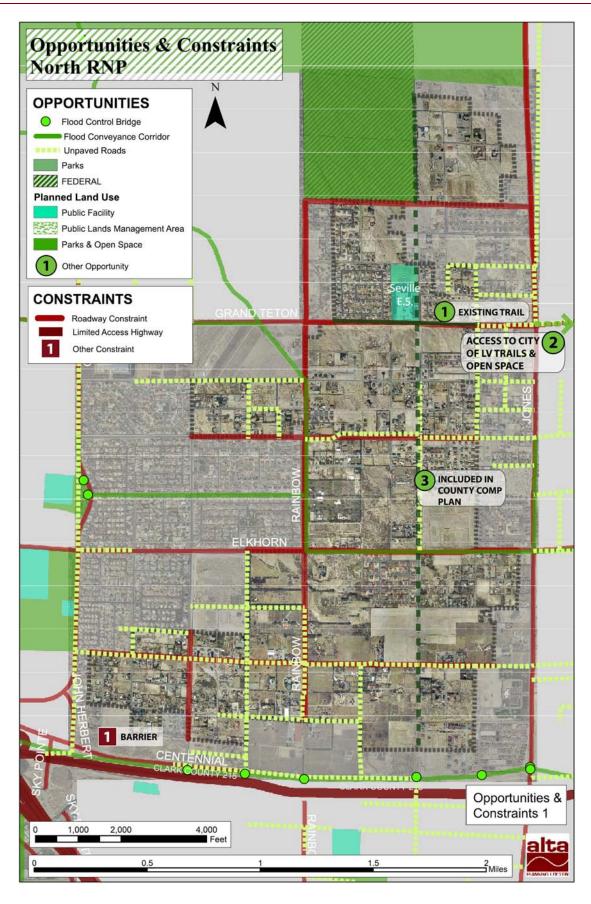
Signalized crossing at Ann and I-215



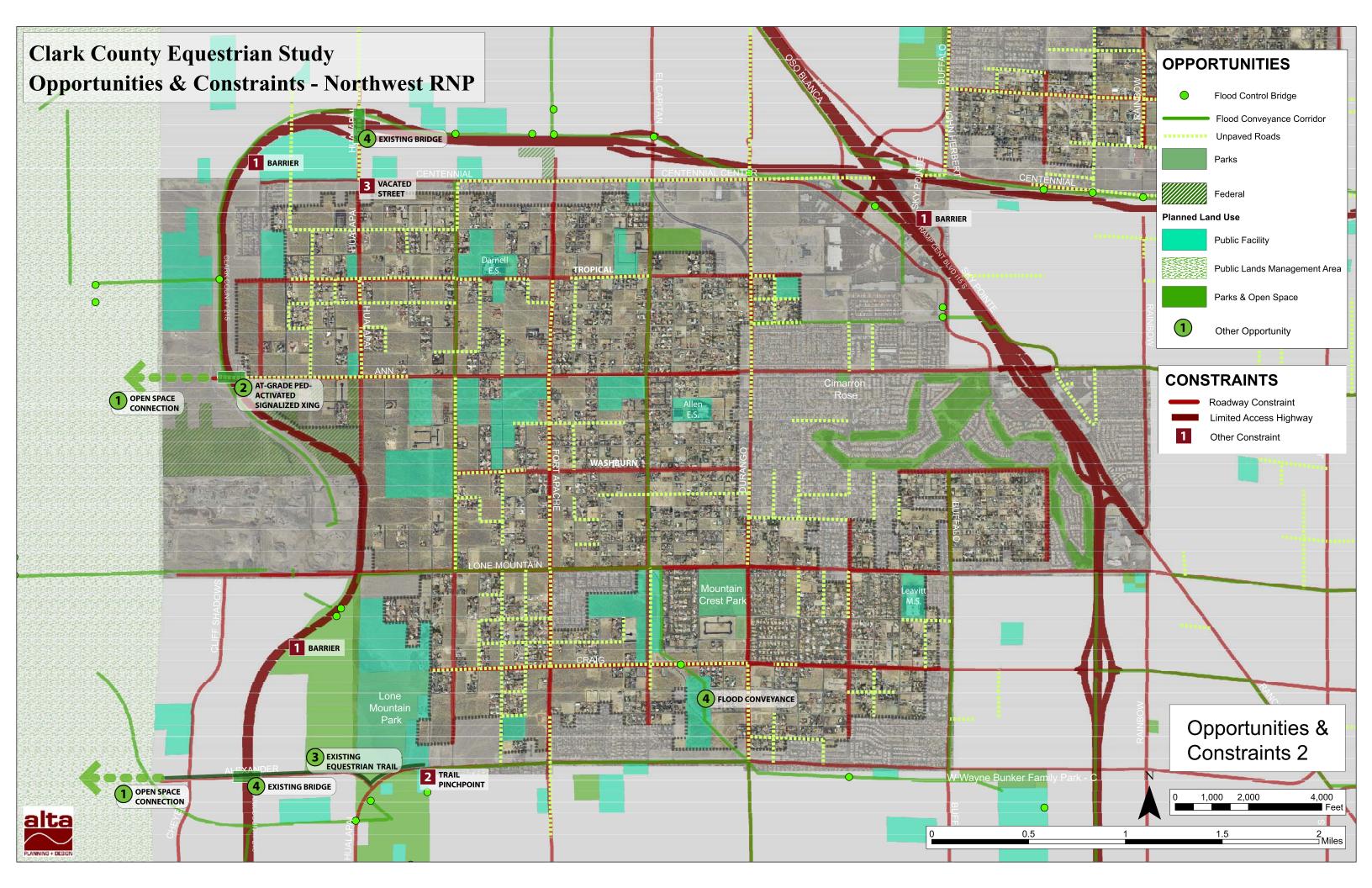
Trail along Buffalo south of Lebaron

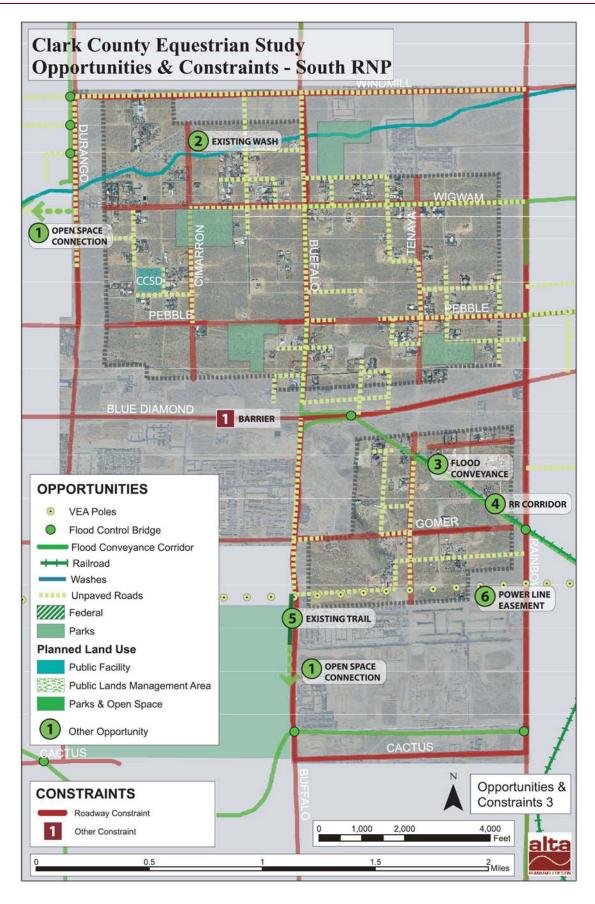


Floyd Lamb State Park



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## Citizen Input

Alta Staff spent a day with interested stakeholders willing to share their local knowledge of the area. These included representatives of Southwest Action Network (SWAN) and Southern Nevada Regional Trails Partnership (SNRTP). These stakeholders led a tour and showed Alta Staff their communities, favorite places to ride, areas of constraint and more. These stakeholders had many concerns, a clear vision of the needs within the community and where they want trails to be located. Some of the key points were:



- Ongoing loss of potential right-of-way for trails due to suburban encroachment
- Need for crossings at intersections like Wigwam & Durango
- Frustration with lack of implementation of previous plans by Clark County
- Desire for equestrian parks
- Desire for trail loops within the RNPs
- Need for access to public lands beyond the RNPs
- Connections to other equestrian facilities and riding areas outside the RNPs

Residents were also encouraged to contact Alta Staff at any time in addition to the scheduled meetings. Many residents chose to do so and Alta Staff spent time on the telephone and via email with these residents to make sure they were able have their needs heard and incorporated into the plan where possible.

# V. Alignment Options

Keeping trails off of section line and ½ section line streets is a significant constraint and limited the trail options. They were further limited by the requirement to be primarily on rural street right of way. Field visits also revealed that there were many streets that had obstacles to public trails like vacated street right-of-way and physical barriers like block walls and paving across the entire width of the right-of-way. These significantly limited the number of options for alignment. The alignments shown on the final trail maps represent the options for a trail network with the given the constraints. There were not enough options to evaluate multiple different alternatives so the alignments were evaluated and used to determine the phasing plan.

## Alignment Evaluation Criteria

#### 1. Community Connections

Does the alignment connect to a community asset or complete a network gap within the community? The Community Connection rankings are as follows:

- + Yes
- No

#### 2. Connection to Federal Lands

The federal lands surrounding the RNPs are a favorite place to ride for many of the residents. Connections to these lands are very important. The Connection To Federal Lands rankings are as follows:

- + Yes, segment connects directly
- **O** Does not connect directly, but comes very close
- No, Does not connect directly

#### 3. Users Served

The horse counts provide an easy way to determine if horses live near a proposed segment. These rankings were determined by comparing proposed alignments with the horse location map. The rankings are as follows:

- **+** Yes, significant population of horses served
- O Some horses nearby
- Few if any horses nearby

#### 4. Private Property Impacts

Most of the alignments are within Clark County right of way along existing roads. A few will impact private property and require easements or some other agreement with the property owner. The rankings are as follows:

- + No Private Property Impacts
- Private Property Impacts

#### 5. Safety

Nearly all the alignments are on rural road shoulders with low volumes of traffic, but many of them do cross streets with significant traffic. Those alignments crossing high volume streets rank lower that those that do not. The rankings are as follows:

- + Alignment is safe
- Alignment has some safety concerns
- Alignment is unsafe

#### 6. Cost

The cost for all the trail alignments is very similar. The more expensive items are crossings that will require a signal or a bridge. The cost rankings are as follows:

- + Alignment is not expensive
- Alignment is somewhat expensive
- Alignment is very expensive

## Clark County Equestrian Study - Alignment Evaluation Matrix

Trail Segment		Evaluation Criteria				
	Community Connections	Connection to Federal Lands	Users Served	Private Property Impacts	Safety	Cost
North RNP						
Whispering Sands	-	-	0	+	+	+
Grand Teton*	+	0	+	+	+	+
Torrey Pines*	+	+	+	+	0	+
Northwest RNP						
Ruffian	+	+	0	-	+	+
Eula	+	-	-	+	0	+
Tee Pee	+	=	0	+	0	+
Dapple Gray	+	-	+	+	0	+
Gowan Drainage	+	-	0	-	0	0
La Mancha	+	+	0	+	+	+
Verde	+	+	+	+	0	0
Helena	+	+	+	+	0	0
South RNP						
Tomisk	+	-	0	+	+	+
Warbonnet	+	=	+	+	+	+
Belcastro	+	-	0	+	+	+
Monte Cristo-Belcastro	+	-	0	+	+	+
Cougar-West	+	+	+	+	0	0
Cougar East	+	-	0	+	+	+
Raven-West	-	-	-	+	+	+
Raven-East	+	-	0	+	+	+
Agate	+	-	0	+	+	+
LeBaron	+	-	0	+	+	+
Ped Bridge over Blue Diamond Highway @ Pioneer	+	+	+	_	0	_
Perimeter Trail	+	-	0	-	0	+

<sup>\*</sup> Already in Comprehensive Trail Plan

## **Proposed Trail Network & Phasing**

#### Trail Network

The proposed equestrian trail network is shown on the following maps labeled Alignment Map 1-3. Each of the three RNP areas in the study is shown on a separate map. The final proposed trail network was selected based a number of criteria including locations of residents with horses, available right of way, and connections to desirable destinations. Complete descriptions of each alignment can be found in Appendix B. This equestrian trail network will preserve the trail routes through formalized signing, grading and resurfacing.

## Phasing

The proposed equestrian trail network as shown includes recommended options for phasing of the implementation. Phase I is shown as a solid line and includes the minimum recommended trail network to allow residents to reach key destinations in and around the area. This is the primary spine of the network and serves most of the users in the RNP areas. Phase II is shown as a dotted line and is recommended for implementation to complete a comprehensive network. These phase II trails will complete loops within the RNP areas which allow residents to ride on designated trails throughout their community

A second phasing option, not shown on the maps, would be based on the goal of providing as much trail as possible in the first phase of the project. By moving the most expensive elements of the plan to the second phase, the entire network can be implemented for less than 1 million dollars. These expensive items are the signalized crossings and the grade separated crossing at the Blue Diamond Highway. This method of phasing will provide loops within the RNP area but the connections to outside areas are incomplete, particularly in the southern RNP. In addition, the safety of the trail users must be carefully considered and segments of trail leading to incomplete crossings may need to be built in the second phase in conjunction with installation of those crossings.

## Trail Design

Nearly all the proposed equestrian trails are along existing rural roads or in right of way of future roads. Clark County Rural Road Standards allow for equestrian uses with in rights of ways. The design of these trails is also limited by the same standards. The primary function of the roads is for automobile travel and floodwater conveyance and any equestrian trail improvements must not interfere with these functions. Due to these limitations the proposed equestrian trails will not have fences or landscaping. The surface materials of the trails are also limited to surfaces that do not generate dust and will not be washed away in a flood event. Therefore, the trail surfaces will be native material or road base not larger than <sup>3</sup>/<sub>4</sub> minus crushed rock. The trail will



look similar in appearance to standard graded rural roadway shoulders. The photo on the right with the equestrian is similar to the final look of the trail. To achieve this surface the existing shoulders will need to be graded smooth and raked or screened to remove and rocks larger that  $\frac{3}{4}$ .

#### Crossings

There are some challenging road crossings within the network that will require new signals to allow equestrians to cross. These are located at Wigwam and Durango in the South RNP area and in the Northwest RNP area at Lone Mountain and El Capitan, Durango and LaMancha, and Durango and Helena. These signals will also require activation buttons designed for equestrian use. These will be mounted high enough to allow a rider to push the button without having to dismount. The signals must also be timed so that riders have enough time to make it across the street before the signal changes. A horse will move slowly across the asphalt or concrete crossings. Depending on the width of the crossing up to 90 seconds may be required. Local equestrian groups should be consulted when programming the timing of a signal to ensure it is adequate. More signals may be necessary as the areas continue to develop and traffic volumes increase.

The other significant crossing being recommended is a bridge over the Blue Diamond Highway at Pioneer Road. The highway is a significant barrier for all non-motorized transportation in the area and with the recent and projected growth it will continue to become more difficult to cross. This crossing should be at least 12 feet wide and designed for horses, bicycles, and pedestrians to use. It will need to have a minimum18'-6" of vertical clearance and have rails or fences adequate to keep pedestrian and equestrians on the bridge. More specifically if a horse became spooked and threw a rider, the fence needs to keep the rider from going over the edge. Mounting blocks also need to be provided at each end of the bridge for riders that choose to dismount while crossing the bridge. Preliminary discussions with engineers and planners with the Nevada Department of Transportation(NDOT) have been positive and favorable to the idea of an additional crossing. This crossing will benefit not only equestrians, but bicyclists and pedestrians as well. This bridge should be included in all nonmotorized transportation plans in the area. The multi-modal benefit will make funding easier than a single use equestrian crossing.



Button can be activated without dismounting.



Crossing at Hualapai

### Wayfinding

Since the trails will not look significantly different from a standard road shoulder; signage and other wayfinding elements are important for trail identification. The graphic at right shows a proposed sign to be added to all the street identification signs along the trail routes. The sign top, shown in brown in the graphic, can be attached to the existing road signs in the RNP areas at a minimal cost. A new sign post with the trail sign will need to be installed at all intersections that do not have existing signage. This solution works for trail users as a wayfinding device and also works to warn motorists that they are on an equestrian trail route. It will also help identify the RNP areas as different from the rest of the County.

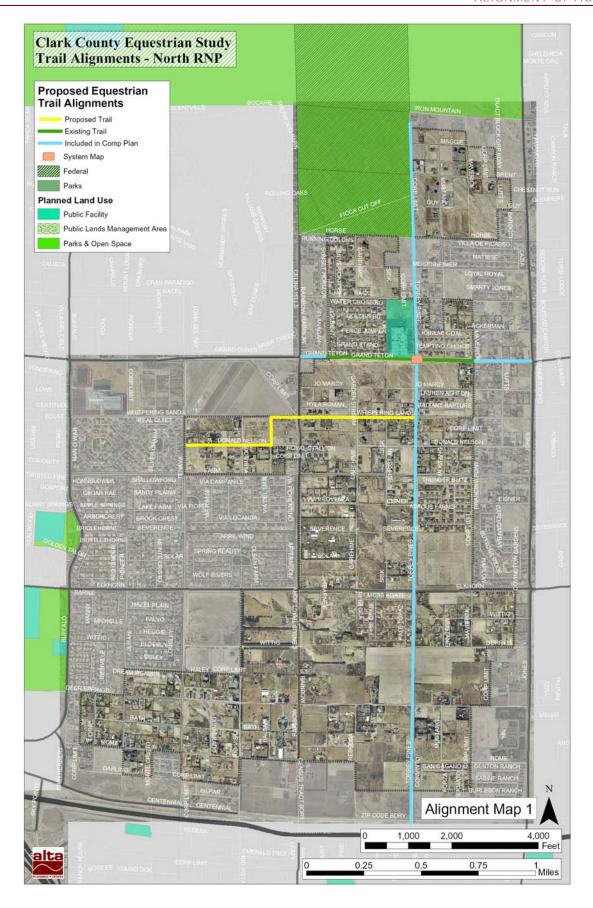
The maps also show two trailheads which are not part of this project. Both are funded and soon to be implemented. northwest RNP and the other is west of Durango and Wigwam in the south RNP. The proposed trail network connects to both of these trailheads and the map identifies these trailheads as key locations for a kiosk with trail maps and other information for trail users. The proposed kiosk could be similar to the one shown at right. The specific design needs to accommodate the needs of equestrians to ride up to the sign and must be vandal resistant. The residents of the RNP should be encouraged to participate in the design of the kiosks to make each one reflective of their community.

Additional wayfinding signs identified on the plan as a system map are proposed at key locations along the network. These will be smaller versions of the same maps found on the kiosks. They will be hung on a post at trailside at the locations shown on the proposed trail maps.

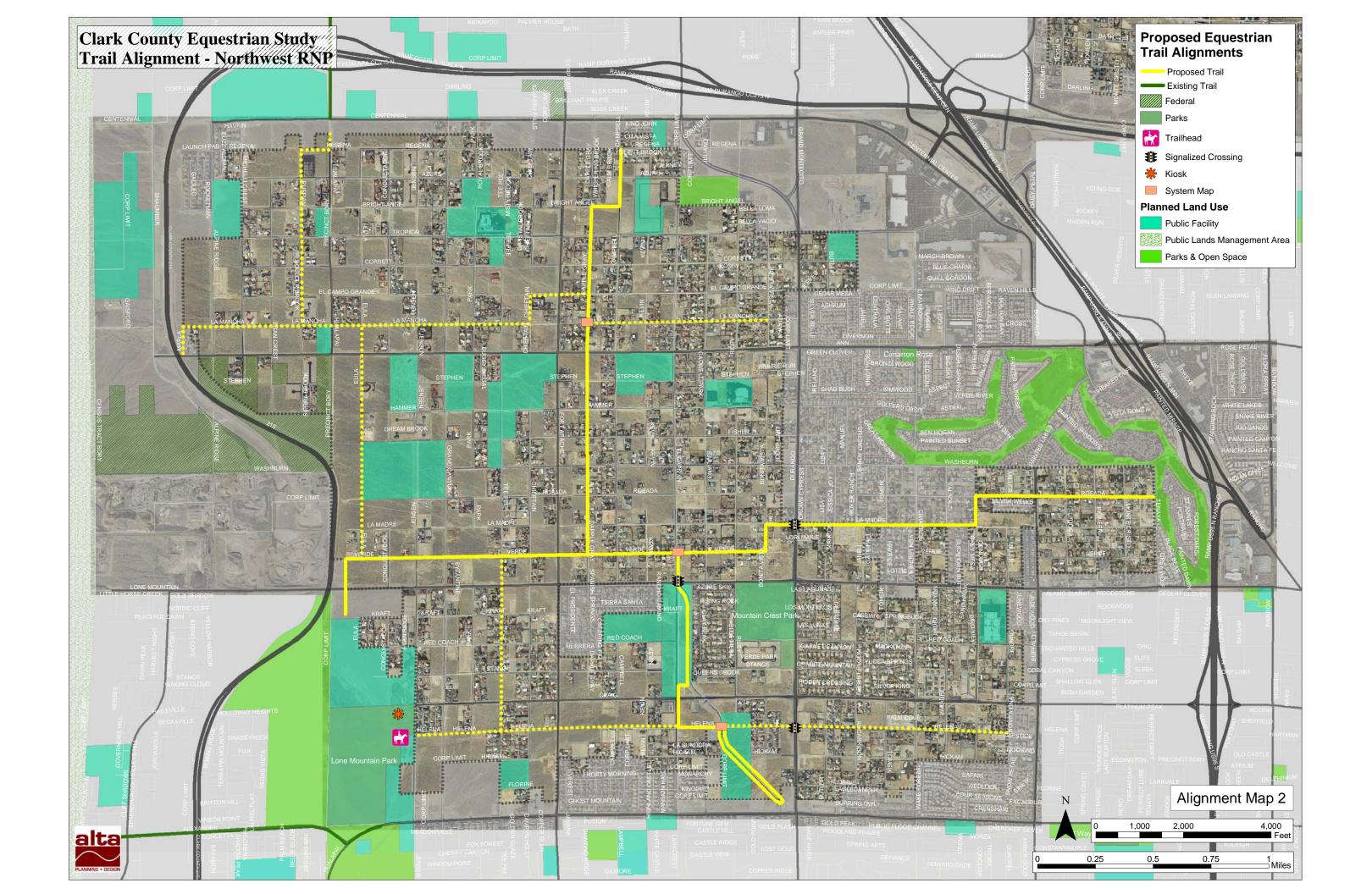


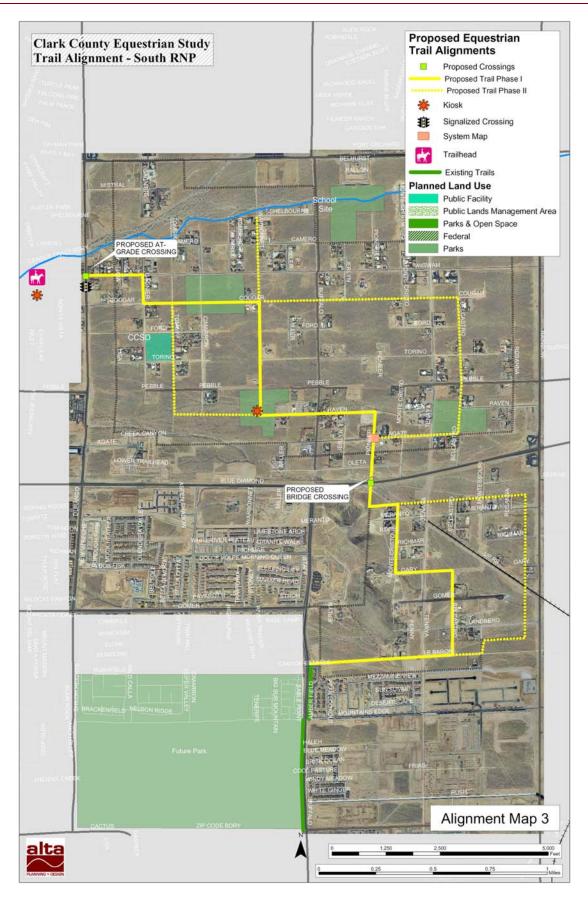


Kiosk with trail map



CLARK COUNTY EQUESTRIAN TRAILS STUDY			





# VI. Operations and Maintenance

The resident trail users will be responsible for reporting incompatible uses on the trail such as parked cars, trash dumpsters, ATVs, and other nuisances. Equestrians will also be responsible for cleaning up the droppings left by their horses and any other trail hazard created by their use. The local equestrian groups, SNRTP and SWAN, should promote responsible use of the trails to their members and consider organizing regular maintenance events to pick up droppings, litter, etc.

Heavy maintenance such as resurfacing after flooding or regular grading to keep the shoulders smooth will be performed by Clark County Public Works as part of their regular road maintenance schedule. The cost to the County for maintenance of these trails is minimal.

# VII. Cost Estimate

The following table shows the estimated cost of implementation of the plan. These costs include a multiplier of 40% for contingency. A complete breakdown of costs by alignment is provided in Appendix C. This cost estimate is provided using costs from April 2007. Use of these costs in the future will require an inflation factor.

# **Estimate of Construction Costs - Summary**

Clark County Equestrian Study 3/24/2007

RNP	Cost
Phase I	
North	\$ 114,755.20
NW	\$ 1,604,183.00
South	\$ 795,335.07
Total	\$ 2,514,273.27
Phase II	
NW	\$ 898,076.20
South	\$ 174,484.18
Total	\$ 1,072,560.38
Bridge Across Blue Diamond	
South	\$ 5,600,000.00
Total	\$ 5,600,000.00
All Phases All Items	
North	\$ 114,755.20
NW	\$ 2,502,259.20
South	\$ 6,569,819.26
Grand Total	\$ 9,186,833.66

# VIII. Funding Options

Effectively funding the proposed trails is critical to the implementation of this plan. One popular means of funding projects like this is to incorporate equestrian accommodations as part of larger roadway improvement projects. Such incidental improvements are made in conjunction with new construction and reconstruction projects, many of which use state and/or federal funding.

The proposed bridge across Blue Diamond Highway is an expensive item and a very important link for any non-motorized transportation in the southern valley. Combining the need for an equestrian, pedestrian and bicycle bridge into one project will improve the likelihood that the project will be funded. Existing and future non-motorized transportation plans in the county should include the Blue Diamond Crossing in their plans and as part of their funding requests.

The Southern Nevada Public Land Management Act of 1998 is another key source of funding to be considered. This project would be a candidate in the Park, Trail, and Natural Area Projects category. The complete plan and relatively low cost of implementing a large portion of the plan makes it a good candidate for funding. Round 8 is limited to projects in Clark, Lincoln, and White Pine Counties and nominations are due May 1, 2007.

The Nevada Recreational Trails Program(RTP) might be a source for a portion of the funding required for implementation. RTP is a federally funded trails assistance program administered by the Federal Highway Administration at the national level and the Division of State Parks in Nevada. The RTP program provides funding for motorized; non-motorized and diversified (shared use) recreational trail projects. Trails funded must be open to the public and use acceptable trail design standards. Applications for 2008 funds are due on February 29<sup>th</sup> 2008. The specific details are available at http://parks.nv.gov/trails.htm.

# IX. Coordination Plan

Clark County Department of Air Quality and Environmental Management (DAQEM) will work to implement the plan. The recommendation is to secure funding and release a Request for Proposals(RFP) for the work to be done by a private contractor. The selected contractor will need to be supervised by The Clark County Department of Public Works to ensure the project is being implemented according to the plan and that it meets County standards. Local equestrian groups like SWAN and SNRTP should be consulted for placement of items like signalized crossing activation buttons, mounting blocks and trail signage. These groups should also be involved in trail maintenance and monitoring along the trail network.

### **Recommended Code Language Changes**

The existing code language in the Comprehensive Plan Trails Element covers the key principals in equestrian trail location and design. It includes:

Policy Trl 2.9.1	Locate equestrian trails primarily in Rural Neighborhood Preservation areas.
Policy Trl 2.9.2	Develop appropriate linkages between equestrian trails in RNP areas.
Policy Trl 2.9.3	Develop linkages between equestrian trails and appropriate federal lands
	where trails have been designated for equestrian use and the equestrian trails
	are located within reasonable travel distance from federal lands.
Policy Trl 2.9.4	Encourage development of equestrian trails on streets built to rural standards
	and discourage development of equestrian trails on section or half-section
	line streets. County trails which would connect to trails in adjacent
	jurisdictions that are substantially complete or identified as priority trails,
	should be completed as practicable.
Policy Trl 2.9.5	Design equestrian trails with greater flexibility for location and design to
	minimize maintenance costs and avoid conflicts with grant funding
	requirements.
Policy Trl 2.9.6	When necessary, install stabilizing materials within equestrian trails to
	provide dust control and stabilize the surfaces adjacent to improved
	roadways.

There are no recommended changes to these existing policies, but below are a few that should be added They are as follows:

Policy Tlr 2.9.7	Consult local users for best practices when installing new trail or trail
	elements.
Policy Tlr 2.9.8	Identify and reject encroachments on new construction applications within
	the right-of-way of equestrian trails in adopted plans.
Policy Tlr 2.9.9	Parking shall not be allowed along designated equestrian routes
Policy Tlr 2.9.10	Paving across the trail shall not be allowed along designated equestrian routes

Equestrian Trail Study, Clark County Nevada

Appendix A

Telephone and Mail Survey





# **Summary of Results**

January 2007

Prepared for: Alta Planning and Design

Prepared by: Pamela S. Gallion, M. Ed. Director, Cannon Survey Center

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# Section 1 - Overview

An assessment of attitudes, opinions, and behaviors of residents in selected Clark County Rural Preservation Areas with regard to equestrian-related activities was conducted by the Cannon Survey Center (CSC) on behalf of Alta Planning and Design . The field dates for this assessment were October 10, 2006 through December 21, 2006. In order to maximize the overall response rate for this survey, the research design included both a telephone-based assessment and a mail out self-administered survey component.

#### Background of respondents

Respondents were categorized into groups according to their level of equestrian related activities and ownership of horses. About 30% of respondents were equestrians or participated in equestrian-related activities and 19.6% said they were horse owners. Most survey respondents (78.2%) had lived at their current residence for over 3 years and had no plans to move in the near future (70.2%). Those who did plan to move (20.8%) would do so most often because they felt the area was becoming too crowded, noisy, and urbanized, or they chose to downsize their property for various reasons such as retirement or changes in family size. Some were relocating due to employment and others wanted to move further out of town to own more land. There were no significant differences between equestrians and non-equestrians with regard to length of residency or plans to move from the area.

#### Importance of equestrian facilities in neighborhood

In general, most respondents (69.7%) felt the equestrian facilities and amenities in their neighborhood to be very important or somewhat important. As one might expect, respondents who were equestrians or participated in equestrian activities were significantly more likely to feel that the equestrian facilities and amenities in their neighborhood are very important (52.5%) than non-equestrians (35.5%). Similar results occurred when horse owners' responses (57.7%) were compared to non-horse owners (36.5%) on the question of importance of these facilities.

Using a response scale of 1-5, with 1 meaning "no value" and 5 meaning "a lot of value", residents were asked to rate the value of existing equestrian facilities in their neighborhood. Over 75% rated their value at 3 or above (mean = 3.55) although significant differences did occur between the responses of Equestrian/Participants (62%) vs. Non-equestrians (26%) with regard to the highest value score. In addition, horse owners (69.4%) were the most likely to place a lot of value on these facilities as compared to non-horse owners (29%). As might be expected, tests for statistically significant differences between the mean scores of equestrians/non-equestrians and owners/non-owners on these questions, are all significant at the 95% level of confidence.

Using the same response scale, respondents were asked to rate how valuable existing equestrian facilities in their neighborhood are to them. Over 75% of residents rated their value at 3 or above although significant differences appeared between the responses of equestrians (62%) vs. non-equestrians (26%) concerning the category of "a lot of value". Horse owners (69.4%) were the most likely to place a lot of value on these types of facilities as compared to non-horse owners (29%). When asked to rate the value of the proposed equestrian trails, close to half of the horse owners (47.6%) rated this at the highest level of value, whereas about 12% said the trails would have no value

at all to them. Equestrians (70.6%) and horse owners (76.4%) were the most likely to value the trails at "5" – the highest level. In comparisons of mean differences for these questions, these differences in response rates were also were statistically significant.

#### Importance of equestrian related aspects of the area

Respondents value the rural character of their neighborhood very highly, with 71.3% saying it was very important. Forty-five percent thought it was very important to be able to see horses in their neighborhood. Over half (54.5%) thought it was very important to have public open space dedicated to riding horses and to have an equestrian trail network (51%). Again, equestrians (85.8%) and horse owners (87.1%) were the most likely to value their neighborhood's rural character and valued being able to see horses there as well (equestrians/participants = 73.8%; horse owners (79.2%).

Public space dedicated to riding horses was very important to equestrians (81.3%) versus non-equestrians (43.3%) and to horse owners (87.1%) versus non-owners (46.7%). Having an equestrian trail network was very important to the majority of equestrians (75.3%) and horse owners (79.2%). Not surprisingly, when mean scores are compared for this series of questions, the differences in means between responses of equestrians vs. non-equestrians and horse owners vs. non-owners, are all statistically significant at the 95% level of confidence.

#### Household composition and rider demographics

By asking respondents how many persons live in their household, we are able to calculate that there are a total of 2.355 people represented in this extended sample for projection estimates and analysis. Thirty-six percent of respondents had at least one person in their household (276 households) who participated in equestrian activities. By their reports, this translates into approximately 625 persons, or 27% of the total number of persons in the extended sample population, who participate in equestrian activities in this target area.

Many of the riders are between the ages of 41 and 60 (38.4%) while riders under the age of 18 make up 28.5% of the total riders associated with this sample. A large percentage of respondents reported their total annual household income as being above \$100,000 (65.6%) which might be as expected due to the larger acreage homes in the area and relative affluence of the neighborhoods under study.

#### Description of equestrian activities

Residents who are horse owners make up 19.6% of the survey sample, however, the combined total of horse owners and those who participate in equestrian activities (232) accounts for 29.9% of the sample. About 15% own horses at their residence, 3.5% own but board their horse(s) elsewhere, and 13% own and board others at their home location. A few (0.5%) only board and do not own a horse. About 10% of the respondents do not own horses but participate in equestrian-related activities and the rest (70.1%) do not own horses and do not participate in any equestrian activities.

The average number of horses owned is two and in addition to boarding other horses, many of these residents offer other activities such as horse shows, clinics, riding lessons, horse trailer storage, training, roping, cutting, and other arena events. Residents participate in a variety of equestrian activities, most often: pleasure/trail riding, western riding, lessons, and showing. They report using horses for these activities an average of 8 or 9 days per month and are most likely to ride on trails/open desert (50.5%) than in enclosed arenas (40.5%)

#### Equestrian needs and preferences

Equestrian respondents said they would ride on trails more often if more trails were available (85.1%) and they had safer (84.2%) and easier (83.8%) access to the trails or did not have to trailer to get to the trails (76.3%). Very few (6.7%) said they did not want to ride more on trails and mentioned personal health reasons or issues with their horses.

When asked if their equestrian needs were being met in their neighborhood, most residents (72%) said "no". In their opinion, the biggest obstacle to meeting those needs was related to development and no open spaces to ride (51.6%), traffic, road crossing safety, and access concerns (23.4%) and the need for more dedicated trails (14.7%). Some felt poor planning by city and county governments (5.4%) created obstacles and one mentioned the need for more support from the non-equestrian residents in the area.

Safe roadway crossings (65.8%) and separation between road and trails (59.8%) were seen as very important considerations if a system of riding trails were to be designed in their neighborhood. Equestrian residents are very likely (81.3%) to use the trails if they are developed for an average of several times per week.

#### Description of rides and riding areas

Equestrians usually ride for 1 to 2 hours but would ideally like to ride a little longer. Most (76%) ride less than 7 miles from their home although some prefer to ride a little further. Many usually ride in desert areas (30.1%) or around their own neighborhood (23.8%), while other chose various mountain areas. Ideally, most would prefer to ride in more scenic mountainous locations, some stressed safety of the trails as a priority, and others said they "just wanted to ride anywhere". These respondents see their biggest obstacles between their usual rides and their ideal rides as being related to development (22%) and accessibility, including safety concerns regarding the traffic issues (36%).

#### Riding trail fees and maintenance

If equestrian trails are developed in their neighborhood, most (64.3%) would be willing to assist with trail maintenance and pay a user fee (50.5%), although many were uncertain (30%) about the fee. The most often suggested amounts for fees ranged from \$1.00 to \$10.00 per use or up to \$100.00 per year.

#### Summary and conclusions

The results of this equestrian trails assessment indicate that approximately 30 percent of households in these Rural Preservation Areas participate in some form of equestrian-related activities and about 20 percent are horse owners. In general, most residents feel the existing and proposed equestrian facilities and amenities in their neighborhood to be important, however, equestrians/participants and horse owners are the most likely to value these facilities highly. The majority of residents value the rural character of their neighborhood very highly and over half agree that having public open space dedicated to riding horses with an equestrian trail network in place is very important. Equestrians, of course, value these aspects of the area the most and when describing what they feel to be the biggest obstacles to achievement of ideal riding conditions, they mention development, loss of open space, accessibility, traffic, and safety concerns most often. Equestrians said they would ride on trails more often if more trails were available and if they had easier and safer access to the trails without having to trailer their horses out of the area so often. Having a convenient and safe interconnected network of dedicated riding trails that has separations from dangerous roadways, good footing, access over highways and freeways to open desert and mountainous areas, is very important to these residents. Most seem as though they would be willing to assist with trail maintenance and pay a fair user fee for the opportunity to enjoy their equestrian recreational activities and trail riding sport. It was suggested that more support and assistance from local government planning officials is needed so that equestrian

Equestrian Trails Assessment 2006 Cannon Survey Center - UNLV concerns are seriously taken into consideration in any future planning processes. Support from non-equestrian residents in the community is also needed in order to accomplish the worthwhile goals of encouraging safe riding, designing and developing riding trails compatible with development in the surrounding area, as well as preserving an integral part of the history and western character of Nevada – horseback riding.

# **Section 2 - Survey Results**

### **Background of respondents**

Respondents were first asked to provide the zip code of their residence and major cross streets nearest their homes. Once it was established that they were located in the target sample area, background questions were asked and for the purposes of this analysis, respondents were categorized into groups according to their level of equestrian related activities and ownership of horses. About 30% of respondents were equestrians or participated in equestrian-related activities and 19.6% said they were horse owners. Results of the survey are reported in question order with relevant comparisons according to level of equestrian activity where significant differences in responses exist.

Most survey respondents (78.2%) had lived at their current residence for over 3 years and had no plans to move in the near future (70.2%). Those who did plan to move (20.8%) would do so most often because they felt the area was becoming too crowded, noisy, and urbanized, or they chose to downsize their property for various reasons such as retirement or changes in family size. Some were relocating due to employment and others wanted to move further out of town to own more land. There were no significant differences between equestrians and non-equestrians with regard to length of residency or plans to move from the area.

	Frequency	Percent
<b>Equestrians &amp; participants</b>	232	29.9
Non-Equestrians	545	70.1
TOTAL	777	100.0

	Frequency	Percent
Horse owners	152	19.6
Non-Horse owners	625	80.4
TOTAL	777	100.0

#### Q1. What is your zip code?

Q1. Zip codes	Frequency	Percent
89129	207	26.6
89131	128	16.5
89141	332	42.7
89113	64	8.2
Other	46	5.9
Total	777	100.0

Equestrian Trails Assessment 2006 Cannon Survey Center - UNLV

### Q2. What are the two nearest cross streets to your residence?

NOTE: Responses to this question are provided in a separate format and report for further GPS analysis and use.

### Q3. How long have you lived at your current residence?

Q3.	Frequency	Percent	Valid Percent
Less than 1 year	27	3.5	3.5
1-3 years	141	18.1	18.3
4-6 years	148	19.1	19.2
7-9 years	127	16.3	16.5
10-15 years	179	23.0	23.2
Over 15 years	148	19.0	19.2
Refuse	7	.8	
Total	777	100.0	100.0

#### Q4. When thinking of your plans for the future, do you intend to move from your current property?

Q4.	Frequency	Percent	Valid Percent
Yes	160	20.6	20.8
No	541	69.6	70.2
Not sure	70	9.0	9.0
Refuse	6	.8	
Total	777	100.0	100.0

# Q4a. Why are you planning to move?

Too crowded/too urbanized	30
Downsizing home	27
Moving further out of town/more land	24
Don't like the growth in area	15
Job transfer	7
Retirement	7
Too much property to care for	4
Taking profit	4
Family is smaller	3
Other	39
Total Responses	121

### Importance of equestrian facilities in neighborhood

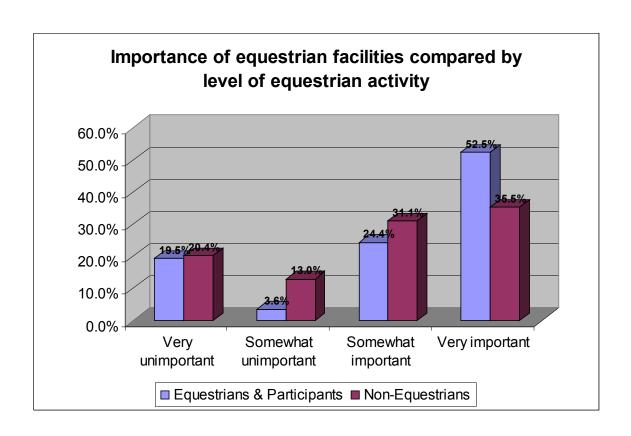
In general, most respondents (69.7%) felt the equestrian facilities and amenities in their neighborhood to be very important or somewhat important. As one might expect, respondents who were equestrians or participated in equestrian activities were significantly more likely to feel that the equestrian facilities and amenities in their neighborhood are very important (52.5%) than non-equestrians (35.5%). Similar results occurred when horse owners' responses (57.7%) were compared to non-horse owners (36.5%) on the question of importance of these facilities.

Using a response scale of 1-5, with 1 meaning "no value" and 5 meaning "a lot of value", residents were asked to rate the value of existing equestrian facilities in their neighborhood. Over 75% rated their value at 3 or above (mean = 3.55) although significant differences did occur between the responses of Equestrian/Participants (62%) vs. Non-equestrians (26%) with regard to the highest value score. In addition, horse owners (69.4%) were the most likely to place a lot of value on these facilities as compared to non-horse owners (29%). As might be expected, tests for statistically significant differences between the mean scores of equestrians/non-equestrians and owners/non-owners on these questions, are all significant at the 95% level of confidence.

Using the same response scale of 1 through 5, with 1 meaning "no value" and 5 meaning "a lot of value", respondents were asked to rate how valuable existing equestrian facilities in their neighborhood are to them. Over 75% of residents rated their value at 3 or above although significant differences appeared between the responses of equestrians (62%) vs. non-equestrians (26%) concerning the category of "a lot of value". Horse owners (69.4%) were the most likely to place a lot of value on these types of facilities as compared to non-horse owners (29%). When asked to rate the value of the proposed equestrian trails, close to half (47.6%) rated this at the highest level of value, whereas about 12% said the trails would have no value at all to them. Equestrians (70.6%) and horse owners (76.4%) were the most likely to value the trails at "5" – the highest level. In comparisons of mean differences for these questions, these differences in response rates were also were statistically significant.

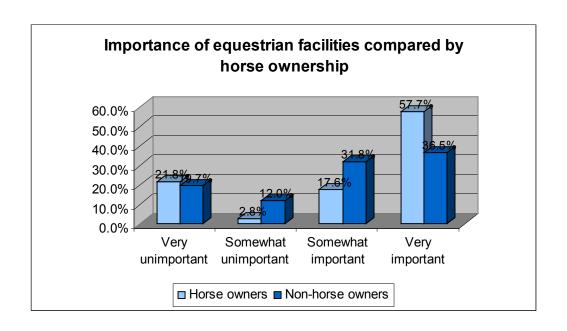
#### Q5. How important are the equestrian facilities and amenities in your neighborhood?

Q5.	Frequency	Percent	Valid Percent
Very unimportant	148	19.0	20.1
Somewhat unimportant	75	9.7	10.2
Somewhat important	214	27.5	29.1
Very important	299	38.5	40.6
Not sure/DK	27	3.5	
Refuse	14	1.8	
Total	777	100.0	100.0
$Mean\ score = 2.90$			



#### How important are the equestrian facilities and amenities in your neighborhood?

Equestrian Activity			Frequency	Percent	Valid Percent	Cumulative Percent
Equestrians & Participants	Valid	Very Unimnportant	43	18.5	19.5	19.5
		Somewhat Unimportant	8	3.4	3.6	23.1
		Somewhat Important	54	23.3	24.4	47.5
		Very Important	116	50.0	52.5	100.0
		Total	221	95.3	100.0	
	Missing	Not Sure/DK	5	2.2		
		Refuse	6	2.6		
		Total	11	4.7		
	Total		232	100.0		
Non-Equestrians	Valid	Very Unimnportant	105	19.3	20.4	20.4
		Somewhat Unimportant	67	12.3	13.0	33.4
		Somewhat Important	160	29.4	31.1	64.5
		Very Important	183	33.6	35.5	100.0
		Total	515	94.5	100.0	
	Missing	Not Sure/DK	22	4.0		
		Refuse	8	1.5		
		Total	30	5.5		
	Total	•	545	100.0		

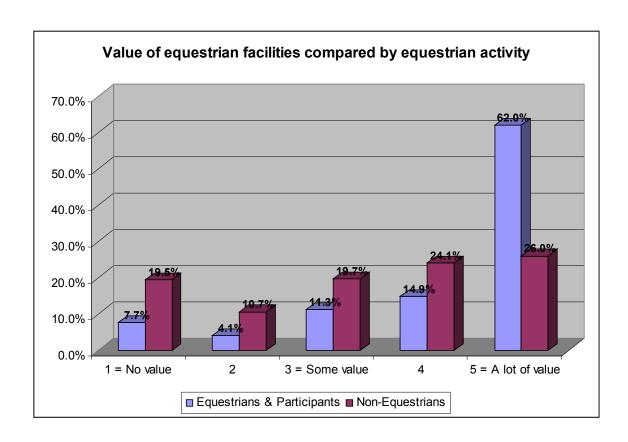


#### How important are the equestrian facilities and amenities in your neighborhood?

Horse ownership			Frequency	Percent	Valid Percent	Cumulative Percent
Own horse(s)	Valid	Very Unimnportant	31	20.4	21.8	21.8
		Somewhat Unimportant	4	2.6	2.8	24.6
		Somewhat Important	25	16.4	17.6	42.3
		Very Important	82	53.9	57.7	100.0
		Total	142	93.4	100.0	
	Missing	Not Sure/DK	5	3.3		
		Refuse	5	3.3		
		Total	10	6.6		
	Total		152	100.0		
Do not own horse(s)	Valid	Very Unimnportant	117	18.7	19.7	19.7
		Somewhat Unimportant	71	11.4	12.0	31.6
		Somewhat Important	189	30.2	31.8	63.5
		Very Important	217	34.7	36.5	100.0
		Total	594	95.0	100.0	
	Missing	Not Sure/DK	22	3.5		
		Refuse	9	1.4		
		Total	31	5.0		
	Total		625	100.0		

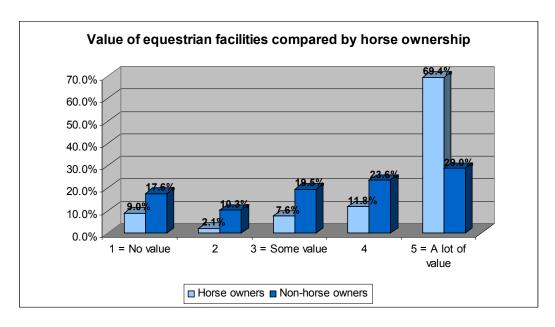
Q6a. How valuable are the equestrian facilities and amenities that exist in your neighborhood?

Q6a.	Frequency	Percent	Valid Percent
1 = No value	115	14.8	15.9
2	63	8.1	8.7
3 = Some value	124	16.0	17.1
4	154	19.8	21.3
5 = A lot of value	268	34.5	37.0
Not sure/Refuse	53	6.8	
Total	777	100.0	100.0
Mean = 3.55			



How valuable are equestrian facilities in your area

Equestrian Activity			Frequency	Percent	Valid Percent	Cumulative Percent
Equestrians & Participants	Valid	1 = No value	17	7.3	7.7	7.7
		2	9	3.9	4.1	11.8
		3 = Some value	25	10.8	11.3	23.1
		4	33	14.2	14.9	38.0
		5 = A lot of value	137	59.1	62.0	100.0
		Total	221	95.3	100.0	
	Missing	DK/Refuse	11	4.7		
	Total		232	100.0		
Non-Equestrians	Valid	1 = No value	98	18.0	19.5	19.5
		2	54	9.9	10.7	30.2
		3 = Some value	99	18.2	19.7	49.9
		4	121	22.2	24.1	74.0
		5 = A lot of value	131	24.0	26.0	100.0
		Total	503	92.3	100.0	
	Missing	DK/Refuse	42	7.7		
	Total		545	100.0		

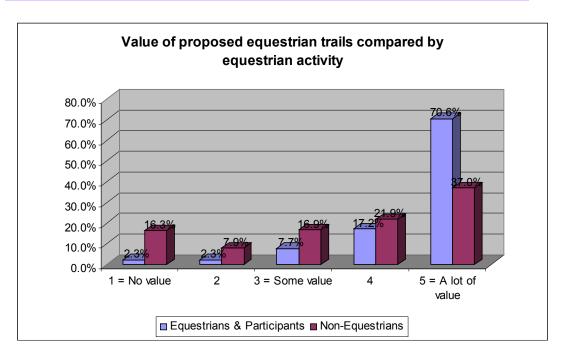


How valuable are equestrian facilities in your area

Horse ownership			Frequency	Percent	Valid Percent	Cumulative Percent
Own horse(s)	Valid	1 = No value	13	8.6	9.0	9.0
		2	3	2.0	2.1	11.1
		3 = Some value	11	7.2	7.6	18.8
		4	17	11.2	11.8	30.6
		5 = A lot of value	100	65.8	69.4	100.0
		Total	144	94.7	100.0	
	Missing	DK/Refuse	8	5.3		
	Total		152	100.0		
Do not own horse(s)	Valid	1 = No value	102	16.3	17.6	17.6
		2	60	9.6	10.3	27.9
		3 = Some value	113	18.1	19.5	47.4
		4	137	21.9	23.6	71.0
		5 = A lot of value	168	26.9	29.0	100.0
		Total	580	92.8	100.0	
	Missing	DK/Refuse	45	7.2		·
	Total		625	100.0		

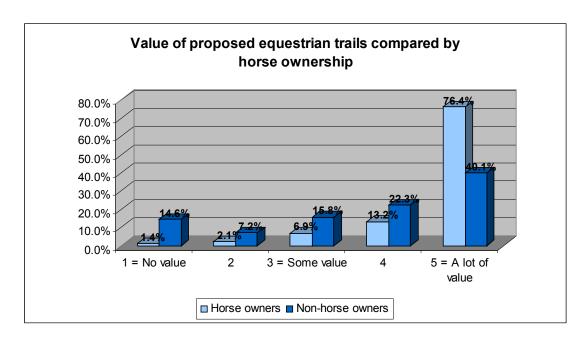
Q6b. How valuable are the proposed equestrian trails in your neighborhood?

Q6b.	Frequency	Percent	Valid Percent
1 = No value	83	10.7	11.9
2	43	5.5	6.1
3 = Some value	98	12.6	14.0
4	143	18.4	20.4
5 = A lot of value	333	42.9	47.6
Not sure/Refuse	77	9.9	
Total	777	100.0	100.0
Mean = 3.86			



How valuable are the proposed equestrian trails

Equestrian Activity			Frequency	Percent	Valid Percent	Cumulative Percent
Equestrians & Participants	Valid	1 = No value	5	2.2	2.3	2.3
		2	5	2.2	2.3	4.5
		3 = Some value	17	7.3	7.7	12.2
		4	38	16.4	17.2	29.4
		5 = A lot of value	156	67.2	70.6	100.0
		Total	221	95.3	100.0	
	Missing	DK/Refuse	11	4.7		
	Total		232	100.0		
Non-Equestrians	Valid	1 = No value	78	14.3	16.3	16.3
		2	38	7.0	7.9	24.2
		3 = Some value	81	14.9	16.9	41.1
		4	105	19.3	21.9	63.0
		5 = A lot of value	177	32.5	37.0	100.0
		Total	479	87.9	100.0	
	Missing	DK/Refuse	66	12.1		
	Total		545	100.0		



How valuable are the proposed equestrian trails

Horse ownership			Frequency	Percent	Valid Percent	Cumulative Percent
Own horse(s)	Valid	1 = No value	2	1.3	1.4	1.4
		2	3	2.0	2.1	3.5
		3 = Some value	10	6.6	6.9	10.4
		4	19	12.5	13.2	23.6
		5 = A lot of value	110	72.4	76.4	100.0
		Total	144	94.7	100.0	
	Missing	DK/Refuse	8	5.3		
	Total		152	100.0		
Do not own horse(s)	Valid	1 = No value	81	13.0	14.6	14.6
		2	40	6.4	7.2	21.8
		3 = Some value	88	14.1	15.8	37.6
		4	124	19.8	22.3	59.9
		5 = A lot of value	223	35.7	40.1	100.0
		Total	556	89.0	100.0	
	Missing	DK/Refuse	69	11.0		
	Total		625	100.0		

Mean score	All	Equestrians	Non-	Horse owners	Non-horse
comparisons	respondents		equestrians		owners
Q5 (1-4 scale)	2.90	3.10	2.82	3.11	2.85
Q6a (1-5 scale)	3.55	4.19	3.26	4.31	3.36
Q6b (1-5 scale)	3.86	4.52	3.55	4.61	3.66

Q5. How important are the equestrian facilities and amenities in your neighborhood?

Q6a. How valuable are the equestrian facilities and amenities that exist in your neighborhood?

Q6b. How valuable are the proposed equestrian trails in your neighborhood?

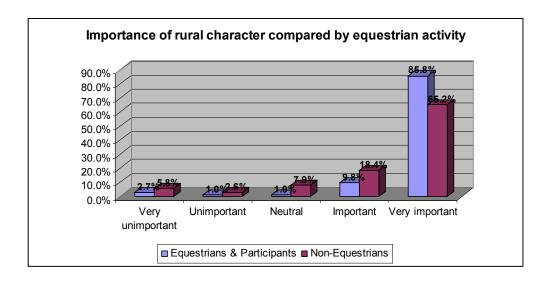
# Importance of equestrian related aspects of the area

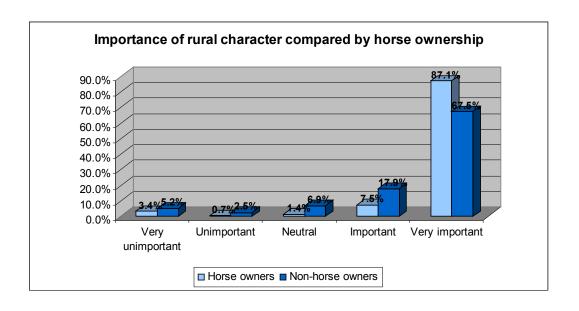
Respondents value the rural character of their neighborhood very highly, with 71.3% saying it was very important. Forty-five percent thought it was very important to be able to see horses in their neighborhood. Over half (54.5%) thought it was very important to have public open space dedicated to riding horses and to have an equestrian trail network (51%).

Again, equestrians (85.8%) and horse owners (87.1%) were the most likely to value their neighborhood's rural character and valued being able to see horses there as well (equestrians/participants = 73.8%; horse owners (79.2%). Public space dedicated to riding horses was very important to equestrians (81.3%) versus non-equestrians (43.3%) and to horse owners (87.1%) versus non-owners (46.7%). Having an equestrian trail network was very important to the majority of equestrians (75.3%) and horse owners (79.2%). Not surprisingly, when mean scores are compared for this series of questions, the differences in means between responses of equestrians vs. non-equestrians and horse owners vs. non-owners, are all statistically significant at the 95% level of confidence.

Q7a. How important is it to have the rural character in your neighborhood?

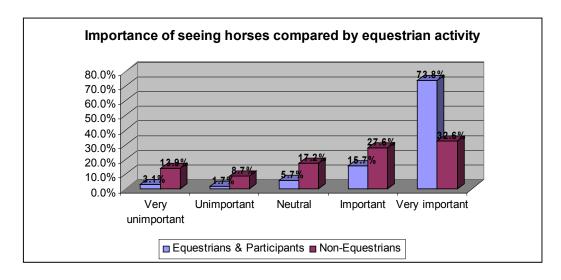
Q7a.	Frequency	Percent	Valid Percent
Very unimportant	37	4.8	4.9
Unimportant	16	2.1	2.1
Neutral/Neither	44	5.7	5.8
Important	120	15.4	15.9
Very important	540	69.5	71.3
Not sure/Refuse	20	2.6	
Total	777	100.0	100.0
$Mean\ score = 4.47$			

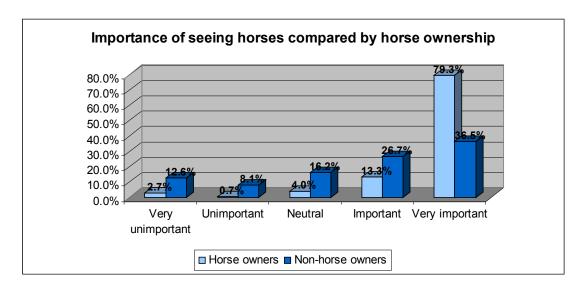




Q7b. How important is being able to see horses in your neighborhood?

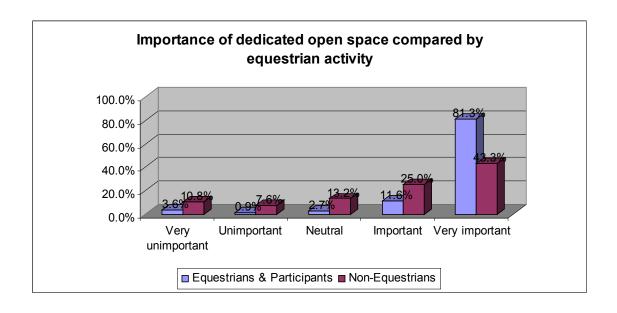
Q7b.	Frequency	Percent	Valid Percent
Very unimportant	82	10.6	10.7
Unimportant	51	6.6	6.6
Neutral/Neither	106	13.6	13.8
Important	185	23.8	24.1
Very important	345	44.4	44.9
Not sure/Refuse	8	1.0	
Total	777	100.0	100.0
$Mean\ score = 3.86$			

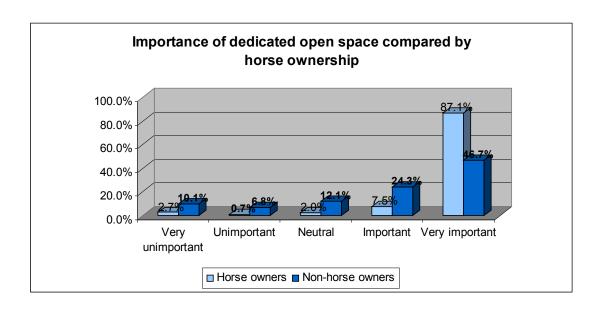




Q7c. How important is public open space dedicated for riding horses?

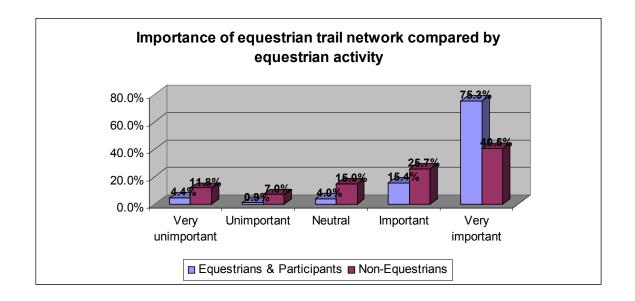
Q7c.	Frequency	Percent	Valid Percent
Very unimportant	66	8.5	8.7
Unimportant	43	5.5	5.7
Neutral/Neither	77	9.9	10.1
Important	160	20.6	21.0
Very important	415	53.4	54.5
Not sure/Refuse	16	2.1	
Total	777	100.0	100.0
$Mean\ score = 4.07$			

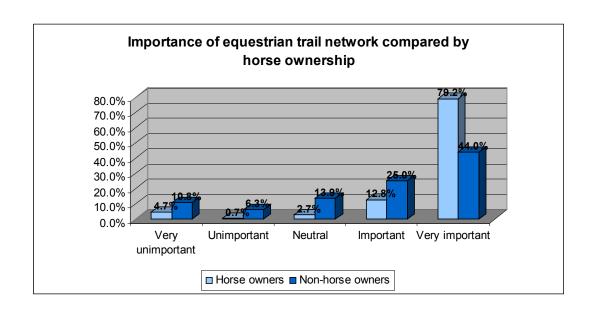




Q7d. How important is an equestrian trail network?

Q7d.	Frequency	Percent	Valid Percent
Very unimportant	72	9.3	9.6
Unimportant	39	5.0	5.2
Neutral/Neither	88	11.3	11.7
Important	170	21.9	22.6
Very important	384	49.4	51.0
Not sure/Refuse	24	2.2	
Total	777	100.0	100.0
$Mean\ score = 4.00$			





Mean score comparisons	All respondents	Equestrians	Non- equestrians	Horse owners	Non-horse
	1				owners
<b>Q</b> 7a (1-5 scale)	4.47	4.75	4.35	4.74	4.40
Q7b (1-5 scale)	3.86	4.55	3.56	4.66	3.66
Q7c (1-5 scale)	4.07	4.66	3.82	4.76	3.91
Q7d (1-5 scale)	4.00	4.56	3.76	4.61	3.85

*Q7a. How important is it to have the rural character in your neighborhood?* 

Q7b. How important is being able to see horses in your neighborhood?

Q7c. How important is public open space dedicated for riding horses?

Q7d. How important is an equestrian trail network?

# Household composition and rider demographics

By asking respondents how many persons live in their household, we are able to calculate that there are a total of 2.355 people represented in this extended sample for projection estimates and analysis. Thirty-six percent of respondents had at least one person in their household (276 households) who participated in equestrian activities. By their reports, this translates into approximately 625 persons, or 27% of the total number of persons in the extended sample population, who participate in equestrian activities in this target area.

Many of the riders are between the ages of 41 and 60 (38.4%) while riders under the age of 18 make up 28.5% of the total riders associated with this sample. A large percentage of respondents reported their total annual household income as being above \$100,000 (65.6%) which might be as expected due to the larger acreage homes in the area and relative affluence of the neighborhoods under study.

#### Q8. How many people live in your household?

Q8.	Frequency	Percent	Valid Percent
1 person	44	5.7	5.7
2 people	294	37.8	38.1
3 people	165	21.2	21.4
4 people	145	18.7	18.8
5 – 6 people	103	13.3	13.4
7 or more people	19	2.4	2.5
Not sure/Refuse	7	2.2	
Total Approx. 2,355 total people	777	100.0	100.0

#### Q9. How many people in your household participate in equestrian activities?

Q9.	Frequency	Percent	Valid Percent
None	497	64.0	64.3
1 person	86	11.1	11.1
2 people	106	13.6	13.7
3 people	34	4.4	4.4
4 people	34	4.4	4.4
5 people	10	1.3	1.3
6 or more people	6	0.7	0.8
Not sure/Refuse	4	.5	
Total Total EQ participants ~625 625/2355=27% are EQ participants	777	100.0	100.0

# Q10. How many riders are in each of the following age groups?

Q10.	Frequency	Percent	Valid Percent
Under age 18	178	28.5	28.5
18-25 years of age	50	8.0	8.0
26-40 years of age	107	17.1	17.1
41-60 years of age	240	38.4	38.4
Over age 60	50	8.0	8.0
Total	625	100.0	100.0

# Q11. What is your total household income before taxes?

Q11.	Frequency	Percent	Valid Percent	Cumulative %
Below \$40,000	23	3.0	3.6	3.6
\$40,000 - \$59,999	43	5.5	6.8	10.4
\$60,000 - \$79,999	52	6.7	8.2	18.5
\$80,000 - \$99,999	101	13.0	15.9	34.4
\$100,000 - \$149,000	194	25.0	30.5	64.8
More than \$150,000	224	28.8	35.2	100.0
Not sure/Refuse	140	18.0		
Total	777	100.0	100.0	

## **Description of equestrian activities**

Residents who are horse owners make up 19.6% of the survey sample, however, the combined total of horse owners and those who participate in equestrian activities (232) accounts for 29.9% of the sample. About 15% own horses at their residence, 3.5% own but board their horse(s) elsewhere, and 13% own and board others at their home location. A few (0.5%) only board and do not own a horse. About 10% of the respondents do not own horses but participate in equestrian-related activities and the rest (70.1%) do not own horses and do not participate in any equestrian activities.

The average number of horses owned is two and in addition to boarding other horses, many of these residents offer other activities such as horse shows, clinics, riding lessons, horse trailer storage, training, roping, cutting, and other arena events. Residents participate in a variety of equestrian activities, most often: pleasure/trail riding, western riding, lessons, and showing. They report using horses for these activities an average of 8 or 9 days per month and are most likely to ride on trails/open desert (50.5%) than in enclosed arenas (40.5%).

Q12.	Frequency	Valid
		Percent
Own horses at this location	116	14.9
Own horses/board elsewhere	27	3.5
Own horses & board at this location	9	1.2
Only board horses at this location	4	.5
Don't own horses but participate in equestrian activities	76	9.8
Don't own horses & don't participate in equestrian activities	545	70.1
Total	777	100.0

- Total Horse owners = 152 or 19.6% of survey respondents
- Total Horse owners & participants = 232 or 29.9% of respondents

## Q13. How many horses can your facility handle for boarding?

Q13.	Frequency
1-4 horses	8
5-9 horses	7
10-30 horses	8
Total	23

Q14. How many horses were boarded at your facility during the past 30 days?

Q14.	Frequency
1-4 horses	31
5-9 horses	3
10-30 horses	6
Total	40

# Q15. Any additional equestrian activities offered by your facility?

Q15.	Frequency
Cutting	1
Horse shows/clinics	1
Horse trailer storage	1
Riding arena/events	2
Riding lessons	3
Rodeo practice	1
Roping	1
<b>Training horses</b>	1
Total	11

Q16. Approximately what percent of your facility is dedicated to the boarding and care of horses that you do not personally own?

Q16.	Frequency
10%	2
30%	1
40%	1
45%	1
50%	1
75%	1
90%	1
100%	2
Total	10

# Q17. How many horses do you own?

Q17.	Frequency	Percent	Valid Percent
One horse	29	19.6	19.6
2 horses	51	34.5	34.5
3 horses	28	18.9	18.9
4 horses	18	12.2	12.2
5 horses	7	4.7	4.7
6-11 horses	15	10.1	10.1
Total	148	100.0	100.0

Q18. Which of these equestrian activities do you participate in? (check all that apply)

Q18.	Frequency	% of total horse owners/participants
		Valid N=222
Backyard enjoyment	83	37.4
Breeding	20	9.0
Cutting	13	5.9
Dressage	19	8.6
Driving	5	2.3
<b>Endurance rides</b>	10	4.5
English	39	17.6
Jumping	21	9.5
Pleasure/trail riding	180	81.1
Reigning	22	9.9
Riding Lessons	47	21.2
Roping	20	9.0
Showing	38	17.1
Western	87	39.2
Other	26	11.7

Q19. How many days per month do you use horses for the activities listed above?

Q19.	Frequency	Percent	Cumulative %
1-5 days per month	72	35.5	35.5
6-10 days per month	52	25.6	61.1
11-15 days per month	25	12.3	73.4
16-20 days per month	19	9.4	82.8
21-25 days per month	12	5.9	88.7
26-30 days per month	23	11.3	100.0
Total	203	100.0	

Q20. What type of riding space do you use most often?

Q20.	Frequency	Percent
Enclosed arena	89	40.5
Trails and/or open fields/desert	111	50.5
Sides of streets	16	7.3
Other	4	1.7
Total	220	100.0

## Other:

All of the above

Trailer to Boulder City for arenas and activities

Trailer horses to mountains/Red Rock Canyon/Cold Creek (2)

Unpaved easements in rural preservation areas (2)

Washes, sand dunes

Q20a. Which streets do you ride along?

Ackerman2HickamAgate3HollywoodAnn2IthicaAzure1JonesBendley1LaMadreBuffalo4LaManchaButler1Lone MountainCamero1MaverickCampbell1MeisenhimerCentennial1MustangCimarron1PebbleCorbett1PioneerCougar1PuebloCraig1RachaelDeer Springs1RainbowDurango5Riley	1 1 1 1 1 1 2
Ann 2 Ithica Azure 1 Jones Bendley 1 LaMadre Buffalo 4 LaMancha Butler 1 Lone Mountain Camero 1 Maverick Campbell 1 Meisenhimer Centennial 1 Mustang Cimarron 1 Pebble Corbett 1 Pioneer Cougar 1 Pueblo Craig 1 Rachael Deer Springs 1 Rainbow Durango 5 Riley	1 1 1 1 2
Azure 1 Jones Bendley 1 LaMadre Buffalo 4 LaMancha Butler 1 Lone Mountain Camero 1 Maverick Campbell 1 Meisenhimer Centennial 1 Mustang Cimarron 1 Pebble Corbett 1 Pioneer Cougar 1 Pueblo Craig 1 Rachael Deer Springs 1 Rainbow Durango 5 Riley	1 1 1 2
Bendley1LaMadreBuffalo4LaManchaButler1Lone MountainCamero1MaverickCampbell1MeisenhimerCentennial1MustangCimarron1PebbleCorbett1PioneerCougar1PuebloCraig1RachaelDeer Springs1RainbowDurango5Riley	1 1 2
Buffalo4LaManchaButler1Lone MountainCamero1MaverickCampbell1MeisenhimerCentennial1MustangCimarron1PebbleCorbett1PioneerCougar1PuebloCraig1RachaelDeer Springs1RainbowDurango5Riley	1 2
Butler1Lone MountainCamero1MaverickCampbell1MeisenhimerCentennial1MustangCimarron1PebbleCorbett1PioneerCougar1PuebloCraig1RachaelDeer Springs1RainbowDurango5Riley	2
Camero1MaverickCampbell1MeisenhimerCentennial1MustangCimarron1PebbleCorbett1PioneerCougar1PuebloCraig1RachaelDeer Springs1RainbowDurango5Riley	
Campbell1MeisenhimerCentennial1MustangCimarron1PebbleCorbett1PioneerCougar1PuebloCraig1RachaelDeer Springs1RainbowDurango5Riley	
Centennial1MustangCimarron1PebbleCorbett1PioneerCougar1PuebloCraig1RachaelDeer Springs1RainbowDurango5Riley	2
Cimarron 1 Pebble Corbett 1 Pioneer Cougar 1 Pueblo Craig 1 Rachael Deer Springs 1 Rainbow Durango 5 Riley	1
Corbett 1 Pioneer  Cougar 1 Pueblo  Craig 1 Rachael  Deer Springs 1 Rainbow  Durango 5 Riley	2
Cougar1PuebloCraig1RachaelDeer Springs1RainbowDurango5Riley	1
Craig1RachaelDeer Springs1RainbowDurango5Riley	1
Deer Springs1RainbowDurango5Riley	1
Durango 5 Riley	1
8-	4
	1
El Campo Grande 1 Rome	1
Elkhorn 1 Stephen	1
Emden 1 Tenaya	1
Farm 3 Tioga	1
Fisher 1 Tomsik	1
Fort Apache 3 Torrey Pines	2
Garchine 1 Tropical	1
Grand Canyon 6 Via Provenza	1
Grand Teton 2 Warbonnet	1
Hammer 1 Whispering Sands	1
Helena 2 Wigwam	1
TOTAL STREETS	1

# Q21. The land you ride on for the most part is...

Q21.	Frequency	Percent
Publicly owned	74	33.3
Privately owned	90	40.5
Not sure	58	26.1
Total	222	100.0

# Q22. How often do you ride outside of an enclosed arena?

Q22.	Frequency	Percent
Not regularly	68	33.8
Once or twice a week	75	34.2
More than twice a week	61	27.9
Not sure	3	1.4
Total	219	100.0

# **Equestrian needs and preferences**

Equestrian respondents said they would ride on trails more often if more trails were available (85.1%) and they had safer (84.2%) and easier (83.8%) access to the trails or did not have to trailer to get to the trails (76.3%). Very few (6.7%) said they did not want to ride more on trails and mentioned personal health reasons or issues with their horses.

When asked if their equestrian needs were being met in their neighborhood, most residents (72%) said "no". In their opinion, the biggest obstacle to meeting those needs was related to development and no open spaces to ride (51.6%), traffic, road crossing safety, and access concerns (23.4%) and the need for more dedicated trails (14.7%). Some felt poor planning by city and county governments (5.4%) created obstacles and one mentioned the need for more support from the non-equestrian residents in the area.

Safe roadway crossings (65.8%) and separation between road and trails (59.8%) were seen as very important considerations if a system of riding trails were to be designed in their neighborhood. Equestrian residents are very likely (81.3%) to use the trails if they are developed for an average of several times per week.

#### Q23. I would ride on the trails more often if...

022	Lucyld side on twile mone if	4====	Somewhat	Somewhat	Dianama	Not Com
<i>Q23</i> .	I would ride on trails more if	Agree	Agree	Disagree	Disagree	Not Sure
23a.	More trails were available	85.1%	8.6%	0.9%	4.5%	0.9%
23b.	I had safer access to the trails	84.2%	9.5%	0.9%	4.5%	0.9%
23c.	I had easier access to the trails	83.8%	9.0%	0.9%	4.5%	1.8%
23d.	I didn't have to trailer to get to the trails	76.3%	6.8%	4.1%	11.0%	1.8%
	I had a riding companion more easily					
23e.	available	40.7%	22.0%	11.7%	23.8%	1.9%
23f.	I had more time	47.9%	19.4%	10.1%	21.2%	1.4%
23g.	I do not want to ride more on trails	6.7%	5.7%	6.7%	76.2%	4.8%

#### More trails were available

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Agree	189	24.3	85.1	85.1
	Somewhat Agree	19	2.4	8.6	93.7
	Somewhat Disagree	2	.3	.9	94.6
	Disagree	10	1.3	4.5	99.1
	Not Sure	2	.3	.9	100.0
	Total	222	28.6	100.0	
Missing	System	555	71.4		
Total		777	100.0		

### I had safer access to the trails

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Agree	187	24.1	84.2	84.2
	Somewhat Agree	21	2.7	9.5	93.7
	Somewhat Disagree	2	.3	.9	94.6
	Disagree	10	1.3	4.5	99.1
	Not Sure	2	.3	.9	100.0
	Total	222	28.6	100.0	
Missing	System	555	71.4		
Total		777	100.0		

#### I had easier access to the trails

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Agree	186	23.9	83.8	83.8
	Somewhat Agree	20	2.6	9.0	92.8
	Somewhat Disagree	2	.3	.9	93.7
	Disagree	10	1.3	4.5	98.2
	Not Sure	4	.5	1.8	100.0
	Total	222	28.6	100.0	
Missing	System	555	71.4		
Total		777	100.0		

### I didn't have to trailer to get to the trails

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Agree	167	21.5	76.3	76.3
	Somewhat Agree	15	1.9	6.8	83.1
	Somewhat Disagree	9	1.2	4.1	87.2
	Disagree	24	3.1	11.0	98.2
	Not Sure	4	.5	1.8	100.0
	Total	219	28.2	100.0	
Missing	System	558	71.8		
Total		777	100.0		

## I had a riding companion more easily available

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Agree	87	11.2	40.7	40.7
	Somewhat Agree	47	6.0	22.0	62.6
	Somewhat Disagree	25	3.2	11.7	74.3
	Disagree	51	6.6	23.8	98.1
	Not Sure	4	.5	1.9	100.0
	Total	214	27.5	100.0	
Missing	System	563	72.5		
Total		777	100.0		

### I had more time

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Agree	104	13.4	47.9	47.9
	Somewhat Agree	42	5.4	19.4	67.3
	Somewhat Disagree	22	2.8	10.1	77.4
	Disagree	46	5.9	21.2	98.6
	Not Sure	3	.4	1.4	100.0
	Total	217	27.9	100.0	
Missing	System	560	72.1		
Total		777	100.0		

I don't want to ride more on trails

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Agree	14	1.8	6.7	6.7
	Somewhat Agree	12	1.5	5.7	12.4
	Somewhat Disagree	14	1.8	6.7	19.0
	Disagree	160	20.6	76.2	95.2
	Not Sure	10	1.3	4.8	100.0
	Total	210	27.0	100.0	
Missing	System	567	73.0		
Total		777	100.0		

Q24. As a resident, or someone who participates in equestrian activities in the area, are your needs as an equestrian being met in the neighborhood?

Q24.	Frequency	Percent
Yes	32	13.8
No	167	72.0
Not sure/DK	33	14.2
Total	232	100.0

Q25. What is the biggest obstacle to having equestrian needs met in the neighborhood?

Q25.	Frequency	Percent
Development/no open spaces to ride	95	51.6
Traffic/safety concerns/access to trails	43	23.4
Need more dedicated/marked trails	27	14.7
City/County Govt. planning/budgets	10	5.4
Other*	9	4.9
Total	232	100.0

### \*Other reasons:

Greed

Rocks

Need more arenas, horse parks, facilities

Not enough participation/pressure from equestrian community

Need more support from non-equestrian residents

#### Q25. Verbatim responses Re: Obstacles to equestrian needs being met

Access across the 215 freeway to the mountains on the west (3)

All the land being developed

All open spaces being closed in - No open spaces

All the new homes going up around us covering up land I once rode on increased traffic since Lone Mtn. allowing tract homes to be build in area

Areas that are clearly marked for riding and safe trails

Auto traffic freeways paved streets easy access to trails and to open areas outside of traffic

Availability of trails (2)

Being able to safely get out to desert cars drivers do not understand how horses may react

**Budget** 

Busy streets to cross

City County Planning

City trying to encroach

Concerns with vehicle traffic and safety

Connected trail system and public arena I can ride to

Constant construction rocky trails speeding cars on side streets to get to desert

Construction busy roads and only desert and small side streets with little or no traffic

dedicated trails- traffic

Developed riding trails

Development (3)

Development in the places I used to ride Traffic now makes it dangerous to ride in my neighborhood

Development of high density housing and disregard of present zoning

Development of in area is encroaching on equestrian use (38)

Development of the vacant land/housing

Difficulty in crossing main streets like Durango Rainbow Blue Diamond

Easy access to open space has been lost due to increased traffic and new houses

Easy access to safe trails worth riding along

Encroachment of housing developments Huge loss of open land

Equestrian parks are not treated like other sports

Getting over physical problems

Getting safely to trails/no access or way to ride on the roads (2)

Getting smaller too much building boxed in

Greed

Greed and Over Development allowing too many houses per acre in an established equestrian area

Growth Increase Traffic Destruction of Re Zones

Growth drivers failing to observe traffic laws lack of designated trails safe passage over busy st

Have more parks and trails open to ride around all parks at horse trail at each park. Have a huge st

Having safe places to ride with good footing and safe from traffic

Housing expansion

Housing growth

Housing tracks streets dirt bike

I am not sure where else I can ride without trespassing on someone's property that would not like it

I have to ride on very busy traffic streets to get to trails

I will go to the horses I do not want them by my house

Increased Developments Encroachment Traffic Gridlock

It is hard to get across the 215 to get to what little trails are left

Keeping the area as Rural Neighborhood Preservation zoned for horses

Knowing resources and rights

Lack of available land

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Lack of funds or the people in charge thinking there is a need

Lack of nearby facilities

Lack of open space too many paved streets

Large open range land is being fenced of to stop open range riding Thanks planning commission

Loss of space and access to open area

Mass construction of tract homes surrounding our area

massive urban growth

Medium and high density residential developments

More trails

Need a horse crossing at Lone Mountain or Ann Rd.

Need more trails and access to them

New construction non horse owners city folks

New roads with heavy traffic not designed around our rural neighborhood half to one acre or more lot

No access Too hard to get to Too many cars

No designated trails (4)

No place to ride

No safe access to trails

Not enough equestrian trails (7)

Not enough open space anymore

Not enough Participation

Not enough places to ride or show – need something for the little guy to replace Horseman's Park

Not enough space for the right facility

Note enough open space to ride safely

Nothing Public exist promised but not developed years ago

Open areas are privately owned

Open land being developed and traffic or lack of police

Paved roads California people moving in complaining about horses Builders trying to build subdivisions

Planned Equestrian Trails

Politics and special interests of developers

Preventing developers from getting variances to zoning so they can put 15 houses on an acre instead

Proximity location not close enough

Residential construction

Riding places

Roads Traffic Developments

Rocks

Room/open space (3)

Safe access to trails more trails available

Safety

sidewalks

stop using open fields land to build houses

The ability to get the Clark County Commission to approve a facility out here in the north west

The areas to ride are being taken away

The city of Las Vegas planning Department plans for a sports field complex and parks in my neighborhood

The continual loss of areas to ride due to building

The development of trails away from the road system

The loss of open land

The over growth of the county and jamming houses together

The trails are slowly getting paved by developers 
The county is not protecting this rural area

The trails lead to busy streets and or intersections

These trails need to be dog friendly Our neighbors need equestrian trails so their family members

Too many houses Lost all land to access riding out to trails That is why I am moving

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#### Too many new homes

Continued on next page >>>>>>>>

Too much construction Overbuilding

Too much construction activity

Too much traffic and housing developments in formerly open desert

Tract housing zoning is encroaching our Rural atmosphere and taking away nature in leaps and bounds

Traffic - lack of enforcement of speed limits

Traffic Road Construction Too many new home going up

Traffic (9)

Traffic and area has grown too much it is not being preserved for rural preservation as it is zoned

Traffic and development encroaching on equestrian use of land

Traffic and not enough trails

Traffic increase unsafe speeds population housing increase

Traffic no trails too much pavement

Traffic Sub Divisions

Trails are not marked - like bike lanes

Trails being removed Safe shoulder being removed by approaches and rock

Unknown possibility of zoning changes

We need horse arenas and trails Currently we do not have any

We need more support from the non equestrian residents

Widening and paving all the streets in rural neighborhoods

Q26. If a system of riding trails were to be made in your neighborhood, how important are each of the following?

Q26.	Important for trails	Very Important	Important	Neutral	Unimportant	Very Unimportant
		_	_			
26a.	The trail surface material	35.1%	36.8%	13.9%	2.6%	11.7%
	Trails located on the shoulders					
26b.	of the street	26.2%	29.3%	21.4%	10.5%	12.7%
26c.	Mounting blocks located at various points along the trail	11.8%	18.8%	27.1%	23.1%	19.2%
	Rest area with restroom facilities, hitching posts &					
26d.	watering pen	25.1%	31.7%	23.8%	9.3%	10.1%
26e.	Safe roadway crossing	65.8%	15.6%	8.7%	.9%	9.1%
26f.	Signage and markings on the trails	36.8%	28.5%	19.3%	7.9%	7.5%
26g.	Separation between road and trail	59.8%	17.5%	10.3%	3.4%	9.0%

### Q26. Other:

A way to get outside of beltway to west mountains/underpass (3)

Ability to enter/exit trail at many points along the trail

Connection between various trails (3)

Development at less than 2 houses per acre

Dirt not rocks

Just do trails - not facilities since they cost too much

Keep tract homes out

Lower speed limits (2)

Multiple trails

No motorized vehicles

No poisonous plants in the landscaping

Permanent corrals

Proximity close for parking to trails

Safety from ATVs and traffic

Separation of off road vehicles and motorcycles

Trailer parking with areas wide enough to turn around easily (3)

#### The trail surface material

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very Unimportant	27	3.5	11.7	11.7
	Unimportant	6	.8	2.6	14.3
	Neutral	32	4.1	13.9	28.1
	Important	85	10.9	36.8	64.9
	Very Important	81	10.4	35.1	100.0
	Total	231	29.7	100.0	
Missing	DK/Not Sure	2	.3		
	System	544	70.0		
	Total	546	70.3		
Total		777	100.0		

### Trails located on 1/2 of the street

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very Unimportant	29	3.7	12.7	12.7
	Unimportant	24	3.1	10.5	23.1
	Neutral	49	6.3	21.4	44.5
	Important	67	8.6	29.3	73.8
	Very Important	60	7.7	26.2	100.0
	Total	229	29.5	100.0	
Missing	DK/Not Sure	4	.5		
	System	544	70.0		
	Total	548	70.5		
Total		777	100.0		

### Mounting blocks located at various points along the trail

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very Unimportant	44	5.7	19.2	19.2
	Unimportant	53	6.8	23.1	42.4
	Neutral	62	8.0	27.1	69.4
	Important	43	5.5	18.8	88.2
	Very Important	27	3.5	11.8	100.0
	Total	229	29.5	100.0	
Missing	DK/Not Sure	2	.3		
	System	546	70.3		
	Total	548	70.5		
Total		777	100.0		

#### Rest area with restroom facitlities

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very Unimportant	23	3.0	10.1	10.1
	Unimportant	21	2.7	9.3	19.4
	Neutral	54	6.9	23.8	43.2
	Important	72	9.3	31.7	74.9
	Very Important	57	7.3	25.1	100.0
	Total	227	29.2	100.0	
Missing	DK/Not Sure	3	.4		
	System	547	70.4		
	Total	550	70.8		
Total		777	100.0		

### Safe roadway crossing

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very Unimportant	21	2.7	9.1	9.1
	Unimportant	2	.3	.9	10.0
	Neutral	20	2.6	8.7	18.6
	Important	36	4.6	15.6	34.2
	Very Important	152	19.6	65.8	100.0
	Total	231	29.7	100.0	
Missing	DK/Not Sure	2	.3		
	System	544	70.0		
	Total	546	70.3		
Total		777	100.0		

## Signage and markings on the trails

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very Unimportant	17	2.2	7.5	7.5
	Unimportant	18	2.3	7.9	15.4
	Neutral	44	5.7	19.3	34.6
	Important	65	8.4	28.5	63.2
	Very Important	84	10.8	36.8	100.0
	Total	228	29.3	100.0	
Missing	DK/Not Sure	2	.3		
	System	547	70.4		
	Total	549	70.7		
Total		777	100.0		

## Separation between the road and the trail

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very Unimportant	21	2.7	9.0	9.0
	Unimportant	8	1.0	3.4	12.4
	Neutral	24	3.1	10.3	22.6
	Important	41	5.3	17.5	40.2
	Very Important	140	18.0	59.8	100.0
	Total	234	30.1	100.0	
Missing	DK/Not Sure	2	.3		
	System	541	69.6		
	Total	543	69.9		
Total		777	100.0		

Q27. Which item from the list is the most important to you for the riding trail system?

Q27.	Frequency	Percent
Safe roadway crossing	82	36.8
Separation between road and trail	77	34.5
The trail surface material	28	12.6
Trails located on the shoulders of the street	14	6.3
All equally important	7	3.3
Rest area	10	4.5
Mounting blocks along trail	1	.4
TOTAL	223	100.0

Q28. If equestrian trails were developed in your neighborhood, how likely is it that you would use the trails?

Q28.	Frequency	Percent
Likely	178	81.3
Somewhat likely	29	3.7
Unlikely	9	1.2
Not sure/Don't know	3	1.4
Total	219	100.0

Q29. How often do you think you would use the trails?

Q29.	Frequency	Percent	Valid Percent
Daily	18	8.2	8.9
Several times a week	76	34.7	37.4
Weekly	59	26.9	29.6
Several times a month	43	19.6	21.2
Less than monthly	7	3.2	3.4
Would not use trails	12	5.7	
Not sure/Don't know	4	1.0	
TOTAL	219	100.0	100.0

Q29a. Why wouldn't you use the	trails?
Depends on ease of access	2
Cannot ride outside arena yet	2
Prefer desert riding	4
Horse is too old for long trails	2
Health reasons/no long rides	1
Children are too young to go	1
Total Responses	12

## **Description of rides and riding areas**

Equestrians usually ride for 1 to 2 hours but would ideally like to ride a little longer. Mot (76%) ride less than 7 miles from their home although some prefer to ride a little further. Many usually ride in desert areas (30.1%) or around their own neighborhood (23.8%), while other chose various mountain areas. Ideally, most would prefer to ride in more scenic mountainous locations, some stressed safety of the trails as a priority, and others said they "just wanted to ride anywhere". These respondents see their biggest obstacles between their usual rides and their ideal rides as being related to development (22%) and accessibility, including safety concerns regarding the traffic issues (36%).

### Q30. When thinking of your USUAL ride, how long is your average ride?

Q30.	Frequency	Percent
Less than an hour	23	10.6
1 – 2 hours	150	69.4
3-4 hours	32	14.8
More than 4 hours	8	3.7
Not sure	3	1.4
TOTAL	216	100.0

## Q31. When thinking of your IDEAL ride, how long would your average ride be?

Q31.	Frequency	Percent
Less than an hour	6	2.8
1 – 2 hours	97	45.1
3-4 hours	85	39.5
More than 4 hours	23	10.7
Not sure/Don't know	4	1.9
TOTAL	215	100.0

## Q32. When thinking of your USUAL ride, what distance do you usually cover?

Q32.	Frequency	Percent
Ride in arena	28	13.6
Less than 3 miles	46	22.3
3 to less than 7 miles	82	39.8
7 to 12 miles	32	15.5
More than 12 miles	10	4.9
Not sure/Don't know	8	3.9
TOTAL	206	100.0

# Q33. When thinking of your IDEAL ride, what distance would you cover?

Q33.	Frequency	Percent
Ride in arena	6	2.8
Less than 3 miles	30	14.2
3 to less than 7 miles	88	41.5
7 to 12 miles	49	23.1
More than 12 miles	32	15.1
Not sure/Don't know	7	3.3
TOTAL	212	100.0

# Q34. Where do you usually ride to?

Q34. Usual Riding Areas	Frequency	Percent
Arena, stable area	21	10.8
Bonnie Springs	1	0.5
Boulder City	2	1.0
Cold Creek	3	1.6
Desert areas	58	30.1
Grass Mountain	1	0.5
Horse Park	2	1.0
Lone Mountain	2	1.0
Lovell Canyon	1	0.5
Moapa	1	0.5
Mountains west of 215 freeway	5	2.6
Mountains	13	6.7
Mt. Charleston & foothills	7	3.6
Mt. Potasi	2	1.0
Near Floyd Lamb Park	2	1.0
Neighborhood/near home	46	23.8
North/NW of Las Vegas	4	2.1
Oregon	1	0.5
Red Rock area	11	5.7
Sheep Mountains	6	5.7
Spring Mountain range	2	1.0
Utah	1	0.5
Wilderness areas	1	0.5
Total	193	100.0

Q35. Ideally, where would you like to ride?

Q35. Ideal Riding Areas	Frequency	Percent
Anywhere, just ride	7	3.7
Arena/covered arena	7	3.7
As far as I can ride	1	0.5
Beach	2	1.1
As far as I can ride	1	0.5
Blue Diamond	1	0.5
Bonnie Springs	2	1.1
Cold Creek	1	0.5
Desert areas	15	8.0
Green pastures with shade trees	4	2.1
Horse Park	1	0.5
Lake Mead	2	1.1
Lone Mountain	2	1.1
Montana	1	0.5
Mountains & Canyons	26	13.9
Mountains west of 215 freeway	13	7.0
Mt. Charleston & foothills	15	8.0
Neighborhood/near home	18	9.6
Nellis Air Force Base	1	0.5
Nice, safe trail system w/good footing	26	13.9
Northern Nevada	2	1.1
Quiet open spaces away from city	2	1.1
Red Rock area	11	5.9
Scenic trails	8	4.3
Sheep Mountains	3	1.6
Spring Mountain range	2	1.1
Tule Springs	3	1.6
Utah	2	1.1
Watering holes w/rest rooms	8	4.3
Wherever the trail leads	1	0.5
Total	187	100.0

Q36. What is the biggest obstacle between your usual ride and your ideal ride?

Q36.	Frequency	Percent
Accessibility of trails/riding areas	33	17.0
Availability of designated/safe riding trails	44	22.0
Development/buildings/loss of open space	45	22.0
Traffic/streets/roads to cross	37	19.0
Time to ride	22	11.0
Other	18	9.0
TOTAL	199	100.0

### Other:

Water

Awareness of trails
Californians
Dirt bikes/4-wheelers in desert (2)
Finding a babysitter (2)
Guns/shooting in desert
Having to trailer horses elsewhere (5)
Health problems (2)
Horse problems
Lighting
No riding partner

# Riding trail fees and maintenance

If equestrians trails are developed in their neighborhood, most (64.3%) would be willing to assist with trail maintenance and pay a user fee (50.5%), although many were uncertain (30%) about the fee. The most often suggested amounts for fees ranged from \$1.00 to \$10.00 per use or up to \$100.00 per year.

Q37. If equestrian trails were developed in your neighborhood, would you be willing to assist with trail maintenance?

Q37.	Frequency	Percent
Yes	137	64.3
No	21	9.9
Not sure/Don't know	55	25.8
TOTAL	213	100.0

Q38. If equestrian trails were developed in your neighborhood, would you be willing to pay a users fee to help with the maintenance of the trails?

Q38.	Frequency	Percent
Yes	109	50.5
No	42	19.4
Not sure/Don't know	65	30.1
TOTAL	216	100.0

Q39. How much would you pay per use for the trails?

Q39.	Frequency	Percent
\$1 - \$5.00	20	18.3
\$6 - \$10.00	14	12.8
\$20 - \$40.00	9	8.3
Pay per year only	10	9.2
Not sure/Don't know	56	51.4
TOTAL	109	100.0

Q40. How much would you pay per year for the trails?

Q40.	Frequency	Percent
\$10 - \$25.00	7	6.4
\$50 - \$100.00	43	39.5
\$120 - \$200.00	17	15.6
\$250 - \$500.00	9	8.3
\$600 - \$2,000.00	4	0.9
Not sure/Don't know	29	26.6
TOTAL	109	100.0

# **Equestrian Trails Assessment**

# **Section 3 - Methodology**

#### **METHODS AND PROCEDURES**

An assessment of attitudes, opinions, and behaviors of residents of selected Clark County Rural Preservation Areas with regard to equestrian-related activities was conducted by the Cannon Survey Center (CSC) on behalf of Alta Planning and Design. The field dates for this assessment were October 10, 2006 through December 21, 2006. In order to maximize the overall response rate for this survey, the research design included both a telephone-based assessment and a mail out self-administered survey component. Data collected from the two surveys were merged into a single database for analysis. Listed sample was obtained of tax lot owners in the designated rural preservation areas. This yielded a list of 4613 participants. Using the services of Intelligent Lookup Services, a company that matches names and addresses with phone numbers a list of 1749 telephone numbers was obtained. If a number could not be obtained, an attempt to reach the household was made by sending a self-administered survey to be completed and returned to the CSC for analysis. A total of 1976 surveys were mailed out. Approximately 81% of the addresses in the study area were either telephoned or received a mail survey. In all, surveys were completed by 777 respondents; 493 completed via telephone interview and 284 completed via a self-administered mail survey. Methods and procedures for each survey are detailed below.

## Telephone Survey

Interviewers from the Cannon Survey Center made telephone calls during the period of October 10, 2006 through December 21, 2006 in order to complete interviews from a calling pool of 1794 names. From that sample 1697 numbers were used, 317 of the numbers could not be used because they were coded as "businesses or other organizations" (N = 75), "non-working or disconnected numbers" (N = 87), "fax or data lines" (N = 74) "no eligible respondent" (N = 71) and various other codes. Up to 10 attempts were made on each number; these attempts were made on different days of the week and at different times of the day in an attempt to maximize the response rate. From the list of 1380 eligible names, 493 surveys were completed, for a response rate of 36%. The disposition of all numbers is provided in the table below. Because the survey was conducted in two parts the table shows the disposition of calls by area as well as all calls.

DESCRIPTION	EQ South	EQ North	EQ All
Complete	58	436	494
Eligible: Refusal, Household Level	22	33	55
Eligible: Refusal, Known Respondent			
Eligible: Break-off	3	19	22
Eligible: Resp Never Available	3	98	101
Eligible: Ans. Mach, Message	1	35	36
Eligible: Ans. Machine, No Message	24	185	209

<sup>&</sup>lt;sup>1</sup> A respondent was deemed ineligible if it could be verified that they did not live or own property in the area. This code was used by interviewers who made contact with the number.

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Eligible: Phys/Mentally Unable		9	9
Eligible: Language Unable	2	5	7
Busy		15	15
No Answer	10	82	92
_ ``	5	61	66
Ans. Mach (Don't Know if HU)		-	
<b>Technical Phone Problems</b>	5	18	23
Out of Sample			0
Fax/Data Line	4	70	74
Non-working Number	7	55	62
<b>Disconnected Number</b>	3	22	25
Number Changed		2	2
Cell Phone		6	6
Call Forwarding	1	1	2
<b>Business/Government/Other Org</b>	10	65	75
No Eligible Respondent	21	50	71
Callback, Resp Not Selected	4	2	6
Callback, Respondent Selected	3		3
Never Call	11	231	242
TOTAL ATTEMPTED	197	1500	1697
Not Attempted	15	37	52
TOTAL SAMPLE	212	1537	1749

#### Survey Administration

The survey was administered under the direction of Pamela Gallion, Director, Cannon Survey Center, by the CSC staff of 14 professional telephone interviewers who were under the supervision of Mr. Taylor Moseley, Data Collection Supervisor for the CSC. The survey was administered in a professional centralized phone bank facility with 11 calling stations located on the Paradise Campus of UNLV. Calls were made Mondays through Fridays between the hours of 8:30 am to 7:00 pm., and on Saturdays between the hours of 10:00 am to 4:00 pm. Up to 10 attempts were made on each number; these attempts were made on different days of the week and at different times of the day in an attempt to maximize the response rate.

#### Interviewer Training, Supervision and Quality Control

Interviewer policies and specialized procedures for this project were reviewed prior to going into the field with the project. Interviewers were reminded of their neutral role and told to avoid interjecting their own opinions or providing unnecessary or overly enthusiastic reinforcements. They were told not to suggest an answer or change the wording of a question. Survey interviewers received detailed training regarding specific interviewing procedures for this study including a discussion of the questionnaire, and practice administering the questionnaire. The centralized phone bank allows for continuous supervision, thus permitting continuous assessment of interviewer style and the ability to follow specific procedures and instruction, and probing quality.

#### Survey Instrument

The survey instrument was designed by Pamela Gallion and was composed of 38 stem questions resulting in approximately 78 possible variables. Fixed response questions were numerically precoded into response categories. Open-ended questions were used when numbers were required as *Equestrian Trails Assessment 2006* 

answers (e.g. "Where do you usually ride" or "What are the obstacles between your usual ride and your ideal ride?") or when the response categories were not adequate to allow for the full range of possible attitudes, opinions or information. CSC adapted the questionnaire for use with the CATI (Computer Assisted Telephone Interviewing) system using SawTooth software.

### Mail Survey

The four page survey instrument was printed and mailed to homeowners in the study areas for which a phone number could not be obtained. A total of 1974 surveys were mailed out, including a cover letter explaining the purpose of the survey and a postage paid return envelope to the CSC. A total of 284 surveys were returned via mail for a response rate of 14%

#### Survey Instrument

The survey instrument was designed by Pamela Gallion and was composed of 38 stem questions resulting in approximately 78 possible variables. Fixed response questions were numerically precoded into response categories. Open-ended questions were used when numbers were required as answers (e.g. "Where do you usually ride" or "What are the obstacles between your usual ride and your ideal ride?") or when the response categories were not adequate to allow for the full range of possible attitudes, opinions or information. CSC adapted the questionnaire for use with the TELEform scanning software.

#### Data Analysis

Computer data management and statistical data analyses were completed by staff in a manner consistent with the parameters of the survey and statistical program SPSS (Statistical Package for the Social Sciences).

Any questions regarding this research project or summarized results or for further information please contact:

Pamela S. Gallion Cannon Survey Center University of Nevada, Las Vegas 4505 Maryland Parkway Box 455008 Las Vegas, Nevada 89154-5008 (702) 895-0486 Email: pam.gallion@unlv.edu

# **SURVEY QUESTIONNAIRE**

answers and all of you	answer this short survey about the equestrian use and needs in your area. There are ur answers will be kept confidential. We are trying to assess the equestrian needs or our responses will aid in the planning of equestrian trails that are proposed for devel	of those living in
200100000000000000000000000000000000000	Part A: Everyone Please Answer	
1. What is your zip code	e? O 89129 O 89131 O 89149 O Other	
2. What are the two nea	rest cross streets to your residence?	
3. How long have you live	ved at your current residence?	
C Less than 1 year	O 7 - 9 years	
○ 1 - 3 years	Q 10 - 15 years	
○4 - 6 years	○ More than 15 years	
4. When thinking of you	r plans for the future, do you intend to move from your current property?	
O No	Why are you planning to move?	
Not Sure     How important are the	e equestrian facilities and amenities in your neighborhood?	
	○ Unimportant ○ Important ○ Very Important	
- , ,		
6.Using a scale of 1 to 5	5, where one means "NO VALUE" and 5 means "A LOT OF VALUE", what is the val	_
a the equestrian facili		A Lot of Value
·	strian trails	O4 D5
	Very	Very
	have each of the following in your neighborhood? Unimportant Unimportant Neither	Important Important
	D1	04 05
	orses in the neighborhood	O4 O5
	network01 D2 O3	04 05
		0.4
8. How many people live	e in your household? 9. How many participate in equestrian activiti	ies?
10. How many riders are	e in each of the following age groups?	
Under age	e 18 18 - 25 26 - 40 41 - 60 Overage 60 _	
11. What is your total h	ousehold income before taxes?	
	○ \$80,000 - \$99,999	
○ Below \$40,000		
○ Below \$40,000 ○ \$40,000 - \$59,999	9 🔾 \$100,000 - \$149,999	

0782288364	$\neg$
12. Which statement best represents you?	
Own Horses at this location Please complete Part C on next page.	
Own horses board elsewhere Please complete Part C on next page.	
O Don't own but participate in equestrian activities Please complete Part C on next page.	
Own & board this location Please complete Part B below & C on next page.	
Only board at this location Please complete Part B below & C on next page.	
O Don't own & don't participate in equestrian activities  Stop! Please return survey to UNLV in the postage paid enveloper provided.	oe .
Part B: For Those Who Board Horses	1/8
13. How many horses can your facility handle?	
14. During the past 30 days, how many horses owned by others were boarded at your facility?	_
15. In addition to boarding and feeding horses, are there any other equestrian activities offered at your facility?	
O Yes	
O No	
15a. If yes, what other equestrian activities does your facility offer?	<del></del> 55
16. Approximately what percent of your facility is dedicated to the boarding and care of horses that you do not personally own?	
Survey Continued on Next Sheet	
Please Continue to Part C	
For Those Who Own Horses or Participate in Equestrian Activities	

17. How many horses do you or	wn?				
18. Which of the following equ	estrian activities do you	participate in? (Check all	that apply.)		
OPleasure / trail riding	O Driving	O English			
O Endurance rides	○ Cutting	O Western			
○ Showing	O Dressage	○ Roping			
Backyard enjoyment	Reigning	C Riding Lessons			
O Breeding	○ Jumping	O Other			
19. About how many days per n	month do you use horses	s for the activities listed a	bove?		
20. Would you say that the typ	e of riding space that yo	ou use MOST OFTEN is	(Please se	elect one)	
() Enclosed arena					
🗘 Trails and/or open fields/de	esert				
	200000000000000000000000000000000000000				
The sides of streets	Which streets?				
O The sides of streets  O Other	■ Which streets?				
O Other					
O Other  21. For the most part, is the lan	nd that you ride on				
O Other  21. For the most part, is the lan					
O Other  21. For the most part, is the lan  O Publicly owned  O Priva	nd that you ride on ately owned O Not Su	ire			
O Other  21. For the most part, is the lan  Publicly owned Priva	nd that you ride on ately owned ONot Su ide of an enclosed arena	ire a?			
O Other  21. For the most part, is the lan O Publicly owned O Priva  22. How often do you ride outsi O Not regularly O Once or	nd that you ride on ately owned O Not Su ide of an enclosed arena twice a week O More	ire a? than twice a week () N			
O Other  21. For the most part, is the lan  C Publicly owned C Priva  22. How often do you ride outsi  Not regularly C Once or	nd that you ride on ately owned O Not Su ide of an enclosed arena twice a week O More	ire a? than twice a week () N		Somewhat Disagree	Disagree
O Other  21. For the most part, is the lan     Publicly owned Priva  22. How often do you ride outsi     Not regularly Once or  23. How much do you agree or  I would ride on trails more if.	nd that you ride on ately owned O Not Su ide of an enclosed arena twice a week O More disagree with the following.	ire a? than twice a week O N ring? Agree	lot sure Somewhat Agree	Somewhat Disagree	
O Other  21. For the most part, is the lan    Publicly owned	nd that you ride on ately owned O Not Su ide of an enclosed arena twice a week O More disagree with the following.	ire a? than twice a week ON ing? Agree	lot sure Somewhat Agree	Somewhat	Disagree O
O Other  21. For the most part, is the lan Publicly owned Priva  22. How often do you ride outsi Not regularly Once or  23. How much do you agree or I would ride on trails more if a. More trails were available, b. I had safer access to the trails	nd that you ride on ately owned O Not Su ide of an enclosed arena twice a week O More disagree with the followi	ire  than twice a week O N  ing?  Agree	Somewhat Agree	Somewhat Disagree	0
O Other  21. For the most part, is the lan    Publicly owned	ately owned O Not Su ide of an enclosed arena twice a week O More disagree with the followi	ire i? than twice a week O N ing? AgreeO	Somewhat Agree	Somewhat Disagree	0
O Other  21. For the most part, is the lan     Publicly owned	ately owned O Not Su ide of an enclosed arena twice a week O More disagree with the following rails	ire i? than twice a week O N ing? Agree	Somewhat Agree	Somewhat Disagree	0 0
21. For the most part, is the lan Publicly owned Priva  22. How often do you ride outsi Not regularly Once or  23. How much do you agree or I would ride on trails more if a. More trails were available, b. I had safer access to the tr c. I had easier access to the tr d. I didn't have to trailer to ge e. I had a riding companion m	ately owned O Not Su ide of an enclosed arena twice a week O More disagree with the following trails trails to the trails	ire  than twice a week O N  ing?  Agree	Somewhat Agree	Somewhat Disagree	0 0 0
O Other  21. For the most part, is the lan Publicly owned Priva  22. How often do you ride outsi Not regularly Once or  23. How much do you agree or I would ride on trails more if. a. More trails were available, b. I had safer access to the tr. c. I had easier access to the tr. d. I didn't have to trailer to ge	ately owned O Not Su ide of an enclosed arena twice a week O More disagree with the following trails trails to the trails nore easily available	ire i? than twice a week O N ing? Agree O O O O O O O O O O O O O O O O O O	Somewhat Agree	Somewhat Disagree	0 0
O Other  21. For the most part, is the lan   O Publicly owned   O Priva  22. How often do you ride outsi O Not regularly   O Once or  23. How much do you agree or   I would ride on trails more if .  a. More trails were available, b. I had safer access to the tr. c. I had easier access to the tr. d. I didn't have to trailer to ge e. I had a riding companion m f. I had more time.	ately owned O Not Su ide of an enclosed arena twice a week O More disagree with the following trails trothe trails on trails tet to determine the equests in Clark County. As a settinal being met in the	ire  ithan twice a week O N  ing?  Agree  O  O  O  O  O  O  O  O  O  O  O  O	Somewhat Agree	Somewhat Disagree  O O O O O O O O O O O O O O O O O O	O O O O O O

7576288362					$\neg$
28. If a system of riding trails were to be made in your neighborhood, how	v important a	re each of t	ne follow	ing?	
a. The trail surface material	Very Unimportent	Unimportent	Neither () 3	Importent	Very Important
b. Trails located on the shoulders of the street		02	03	04	05
c. Mounting blocks located at various points along the trail		02	03	04	05
d. Rest area with restroom facilities, hitching posts & watering pen		02	03	04	05
e. Safe roadway crossing		02	03	04	05
f. Signage and markings on the trails		02	03	04	05
g. Separation between the road and the trail		02	03	04	05
h. Other		02	03	04	05
		~-	~~	~ .	~~
27. Which item from the list above is the most important to you?	F145, QRA 27 1/2	99430 EXERT	5.04 S.045A		
28. If equestrian trails were developed in your neighborhood, how likely is	s it that you w	ould use the	e trails?		
☐ Likely ☐ Somewhat likely ☐ Somewhat unlikely ☐ Unlikely	O Not sure				
29. How often do you think you would use the trails?					
O Would not use O Daily O Several times weekly O Weekly	O Several	times month	nly Ol	Less than	monthly
1					
Why wouldn't you use the trails?					
30. When thinking of your USUAL ride, how long (time) is your average $$	ride?				
O Less than 1 hour O 1 - 2 hours O 3 - 4 hours O More than 4	hours				
31. When thinking of your IDEAL ride, how long (time) would your avera	ge ride be?				
O Less than 1 hour O 1 - 2 hours O 3 - 4 hours O More than 4	hours				
32. When thinking of your USUAL ride, what distance do you usually cov	er when ridin	g?			
O Ride in an arena O Less than 3 miles O 3 - 6 miles O 6 - 1	0 miles O	More than 1	o miles		
33. When thinking of your IDEAL ride, what distance would you cover when the state of the state	nen riding?				
○ Ride in an arena ○ Less than 3 miles ○ 3 - 6 miles ○ 6 - 1	0 miles O	More than 1	o miles		
34. When thinking of your USUAL ride, where do you usually ride to?	(0)				
35. When thinking of your IDEAL ride, where would you ride to?					
36. What is the biggest obstacle between your USUAL ride and your IDE.	AL ride?				
37. If equestrian trails were developed in your neighborhood would you b	e willing to a	sist with tra	il mainte	nance ?	
○ No O Not Sure O Yes How are you willing to help?					
38. If equestrian trails were developed in your neighborhood, would you be maintenance of the trails?	e willing to p	ay a users f	ee to he	lp with the	
○ No O Not Sure O Yes How much would you pay Pe			Per year	\$	_
Thank you for completing	the surv	ey!			
Please return to UNLV in postage pa	aid envelo	pe provi	ded.		

Equestrian Trail Study, Clark County Nevada

Appendix B

Trail Alignment Descriptions

**North RNP Alignment Descriptions** 

Alignment	Direction	Description Description	Phase	Photo
Torrey Pines	N-S	A ½ section line street that is already in the County Comprehensive Trail Plan. This alignment bisects this RNP and provides quick access to the network for many of the equestrians in the area. The shoulders are unpaved and clear of significant obstacles to trail implementation. The west side of the street is recommended for the trail.	-	
Grand Teton	E-W	A ½ section line street in the County Comprehensive Plan. The street already has equestrian trails implemented through the RNP. Following this alignment to the east leads to a larger existing trail network within the City of Las Vegas. These existing trails along Grand Teton are built similar to those within the City of Las Vegas and include a fine rock surface and fencing between the trail and the road. Future county trails will not include these amenities.	-	
Whispering Sands	E-W	A short spur connecting to the Torrey Pines alignment. This spur provides a connection for the equestrians near this spur as documented in the field survey. There are no significant obstacles to implementation. The north side of the street is recommended for the trail.	I	

**Northwest RNP Alignment Descriptions** 

Alignment	Direction	Description	Phase	Photo
Dapple Gray	N-S	Near the center of the NW RNP this alignment provides access to the trail network for a number of equestrians in the northern portion of the RNP. The shoulders of the street are free of debris and obstacles to trail implementation. The crossing at Ann Road may require a signal in the future. The trail should be on the west side of the street.	I	
Gowan Drainage	N-S	This drainage is an opportunity for a trail alignment away from the roadway shoulders. The property is publicly owned and will require very little work to make a good trail. A signal would be required where the trail crosses Lone Mountain Road.	I	
Verde	E-W	Stretching the length of the RNP from east to west this is the longest alignment in the plan. It is also the alignment that serves the largest number of equestrian users. Starting in the east the trail begins on Rosada, turns south for a block at Grey Mesa, and then continues west along La Madre. At Bonita Vista the trail turns south again for a block and then continues westward along Verde. These short one block changes in direction are necessary to avoid obstacles like the County boundary, paved driveways and other impediments. The proposed alignment is generally free of obstacles, but will require residents to keep their trash dumpsters out of the right of way. A signal will be required for crossing at Durango and La Madre. This alignment terminates on the west end at Lone Mountain Park. The trail should be on the south side of the street.	I	

# Northwest RNP Alignment Descriptions Continued

Alignment	Direction	Description	Phase	Photo
Ruffian	N-S	This short trail serves the equestrian users in the NW area of the RNP and provides a connection to the larger trail network. It also connects to the equestrian bridge across highway 215. There is a small section of right-of-way that will need to be secured along Hualapai between Regena and Centennial to preserve this connection. There are no significant obstacles along this alignment. The trail will be on the east side of the street.	II	
Eula	N-S	This segment completes a N-S route along in the western half of the RNP, and connects to the Lone Mountain Equestrain Park. There is very little developmenmt along this alignment. The street is not complete along the majority of the alignment which will make this portion of the network an attractive place to ride.	II	
Tee Pee	N-S	A short connection between the Verde and Helena alignments. This portion of the trail will allow equestrains to ride some loops in the southwest portion of the RNP without having to go all the way to Lone Mountain Park. The existing shoulders do have a few paved driveways that can sometimes be difficult for horses to cross. The trail should be on the east side of the street.	II	

# **Northwest RNP Alignment Descriptions Continued**

Alignment	Direction	Description	Phase	Photo
La Mancha	E-W	This alignment is important to riders in the northern portion of the RNP. It begins on the far east end and ends at the signalized crossing of Highway 215. West of 215 are open public lands that are a favored destination of riders. At the intersection of Dapple Gray and LaMancha the trail is sited north one block to El Campo Grande and then placed back on La Mancha at Chieftain. This short detour is necessary to avoid a piece of property that crosses La Mancaha and prevents through travel. The road shoulders are generally free of obstacles, but will require residents to keep their trash dumpsters out of the street right-of-way. The north side of the street is preferred for the trail alignment.	II	
Helena	E-W	The southernmost alignment in the RNP begins at the eastern boundary of the RNP and terminates at the west end at Lone Mountain Park. This alignment is the most direct route to Lone Mountain Park for equestrians living in the southern part of the RNP. The shoulders are adequate for the trail and portions of the road are yet to be completed. A crossing signal at the intersection of Helena and Durango will be necessary for the horses to cross safely. The trail is located on the south side of the street.	II	

**South RNP Alignment Descriptions** 

Alignment	Direction	Description Description	Phase	Photo
Cougar West	E-W	This is a very important segment of the south RNP trail network. Starting from the west at Durango and Wigwam this crossing will be the link to the proposed trailhead and riding areas west of Durango. Moving eastward the alignment turns south off of Wigwam at Lisa and then continues west along Cougar to Warbonnet. Most of this alignment is along unimproved right-of-way providing a safe trail experience for riders. This alignment also crosses through a future park site which might create an opportunity for some equestrian facilities to be incorporated into the design.	I	
Cougar East	E-W	East of Warbonnet the Cougar alignmement provides a key piece of a trail loop within the northern portion of the southern RNPs. Most of the alignment is along unimproved right-of-way and provides a safe trail experience. The crossing at Buffalo is a concern to residents and may require some improvement in the future as traffic volumes along Buffalo increase.	II	
Warbonnet North	N-S	This short trail piece is a key connection to the larger trail network. There is a significant number of horses boarded at the north end of Warbonnet and there is a strong desire for a connection to the trail network from this part of the RNP. The existing roadway shoulders provide no obstacles to this alignment. The trail should be on the east side of the street.	II	

# **South RNP Alignment Descriptions Continued**

Alignment	Direction	Description	Phase	Photo
Warbonnet South	N-S	This link between Raven and Cougar is nearly in the center of the northern part of the RNP. It is also a key piece of the Phase I connections through the RNP. The southern end of the alignment intersects the trail network at a proposed park site, which is an opportunity to incorporate equestrian use into the future park program. There are no significant obstacles along this alignment. The trail should be on the east side of the street.	I	
Tomisk	N-S	This segment is a key piece of the western leg of a large trail loop. There is a future school site identified between Ford and Torino to the west of this alignment. The trail should be located on the east side of the street to minimize conflicts between horses and automobiles at busy times at the school. The shoulders are suitable for a trail on either side of the street	II	
Belcastro	N-S	Belcastro is the eastern leg of a trail loop. At the south end it terminates at the edge of another proposed park in the area. Development along this alignment is minimal and does not impede implementation of a trail. The trail should be on the east side of the street.	II	
Raven West	E-W	This short three block segment is the southwest leg of the trail loop. There are no improvements along this alignment and nothing to impede implementation.	I	

# **South RNP Alignment Descriptions Continued**

Alignment	Direction	Description	Phase	Photo
Raven East	E-W	Another short but critical segment. Starting on the west end at Warbonnet the alignment follows Raven eastward before turning south at Pioneer. This segment terminates at Pioneer and Agate. When a bridge is built across Blue Diamond it will connect at Pioneer and allow riders access the trail networks on bothe sides of the highway. There are no obstacles in the right-of-way of this trail.	II	
Agate	E-W	This is the SE leg of the trail loop in the north. It connects to the Blue Diamond crossing at Pioneer and connects to Belcastro at the edge of a future park site. The roadway shoulders are suitable for a trail.	II	
Monte Cristo- Belcastro	N-S	Beginning at the RNP northern boundary this alignment follows Monte Cristo to the south, turns east at Gary and back south and Belcastro, finally terminating at Le Baron. It is the primary N-S alignment is this small RNP. There is very little development in this portion of the RNP and obstacles to this alignment are minimal. The trail should be on the east side of the street.	I	

# **South RNP Alignment Descriptions Continued**

Alignment	Direction	Description	Phase	Photo
South Perimiter	N-S-E-W	This alignment follows the western half of the south RNP perimeter. The land around this RNP is part of the Mountains Edge development and the trail will be within an easement along this perimeter. It creates a loop around the RNP with minimal auto-horse conflicts.	II	
Le Baron	EW	This is a completely unimproved alignment along the southern portion of the RNP. It is a key connection to an existing trail along Buffalo beginning at Le Baron. Some grading will be required to make a suitable trail surface. The trail should be on the south side of the street.	-	
Blue Diamond Bridge	N-S	This is one of the most important elements of the plan and also the most expensive. Beginning in the south, the bridge would start at the north end of Monte Cristo, ascend to clear the highway, and descend to connect at Pioneer and Agate. The bridge would be a minimum of 12 feet wide and require study rails or fencing to keep a people and horses on the bridge.	1	

Equestrian Trail Study, Clark County Nevada

Appendix C

Cost Estimate

Estimate of Construction Costs - Summary				
Clark County Equestrian Study				
3/23/2007				
RNP	Cost			
Phase I				
North	\$	114,755.20		
NW	\$	1,604,183.00		
South	\$	795,335.07		
Total	\$	2,514,273.27		
Phase II				
NW	\$	898,076.20		
South	\$	174,484.18		
Total	\$	1,072,560.38		
		, ,		
Bridge Across Blue Diamond				
South	\$	5,600,000.00		
Total	\$	5,600,000.00		
		, ,		
All Phases All Items				
North	\$	114,755.20		
NW	\$	2,502,259.20		
South	\$	6,569,819.26		
Grand Total	\$	9,186,833.66		

### **Estimate of Construction Costs**

Clark County Equestrian Study **North RNP** 

Item - By Trail Segment	Quantity	Unit	Unit Cost	Total	
Whispering Sands					
Grade Shoulders	88800	) Sq. Ft.	0.16	\$	14,208.00
Culverts*	2	2 EA	3,000.00	\$	6,000.00
Sign Cap	5	5 EA	175.00	\$	875.00
Sign	5	5 EA	375.00	\$	1,875.00
Subtotal				\$	22,958.00
Torrey Pines					
Grade Shoulders	242250	) Sq. Ft.	0.16	\$	38,760.00
Culverts*	2	I EA	3,000.00	\$	12,000.00
Sign Cap	11	EA	175.00	\$	1,925.00
Sign	10	) EA	375.00	\$	3,750.00
Subtotal				\$	56,435.00
Grand Teton**					
Sign Cap	2	I EA	175.00	\$	700.00
Sign	3	BEA	375.00	\$	1,125.00
Trail Map Sign	1	EA	750.00	\$	750.00
Subtotal				\$	2,575.00
Subtotal				\$	81,968.00
Contingency 40%				\$	32,787.20
Grand Total				\$	114,755.20

<sup>\*</sup> Culverts under driveways where drainage is required. Assumes about 25% of all driveways will need culverts

<sup>\*\*</sup> Trail exists along this alignment, only signage is necessary

### **Estimate of Construction Costs**

Clark County Equestrian Study **NW RNP** 

Item - By Trail Segment	Quantity	Unit	Unit Cost	Total	
Ruffian*					
Grade Shoulders		Sq. Ft.	0.16		12,480.00
Culverts**		EA	3,000.00		3,000.00
Sign Cap	4	EA	175.00	\$	700.00
Sign with post	3	EA	375.00	\$	1,125.00
Subtotal				\$	17,305.00
Dapple Gray					
Grade Shoulders	150000	Sq. Ft.	0.16	\$	24,000.00
Culverts**	5	EA	3,000.00	\$	15,000.00
Sign Cap	8	EA	175.00	\$	1,400.00
Sign with post	7	EA	375.00	\$	2,625.00
Trail Network Sign at LaMancha	1	EA	750.00	\$	750.00
Subtotal				\$	43,025.00
LaMancha*					
Grade Shoulders	230100	Sq. Ft.	0.16	\$	36,816.00
Culverts**	3	EA	3,000.00	\$	9,000.00
Sign Cap	7	EA	175.00		1,225.00
Sign with post	6	EA	375.00	\$	2,250.00
Subtotal				\$	49,291.00
Eula*				•	,
Grade Shoulders	79200	Sq. Ft.	0.16	\$	12,672.00
Culverts**		EA	3,000.00		3,000.00
Sign Cap		EA	175.00		700.00
Sign with post		EA	375.00		1,125.00
Subtotal	J		010.00	\$	17,497.00
Verde				Ψ	11,101.00
Grade Shoulders	315750	Sa Ft	0.16	\$	50,520.00
Culverts**		EA	3,000.00		12,000.00
Sign Cap		EA	175.00		2,625.00
Sign with post		EA	375.00		5,625.00
Trail Network Sign at El Capitan		EA	750.00		750.00
Intersection Signal at Durango		EA	500,000.00		500,000.00
Subtotal	'		300,000.00	\$	571,520.00
Stange*				Ψ	37 1,320.00
Grade Shoulders	60000	Sq. Ft.	0.16	Ф	9,600.00
Culverts**		EA	3,000.00		3,000.00
		EA	175.00		525.00
Sign Cap		EA	375.00		1,125.00
Sign with post Subtotal	3	EA	375.00	φ \$	1,125.00
				Ф	14,250.00
Gowan Drainage	62750	Ca Ft	0.16	ď	10 200 00
Grade Trail		Sq. Ft.	0.16		10,200.00
Sign Cap		EA	175.00		350.00
Sign with post		EA	375.00		750.00
Intersection Signal at Lone Mt. & El Capitan	1	EA	500,000.00		500,000.00
Subtotal				\$	511,300.00
Helena*	0.45050	0 5	0.40	•	0.4.440.00
Grade Shoulders	215250	-	0.16		34,440.00
Culverts**		EA	3,000.00		3,000.00
Sign Cap		EA	175.00		1,575.00
Sign with post		EA	375.00		3,375.00
Trail Network Sign at Durango		EA	750.00		750.00
Intersection Signal at Durango	1	EA	500,000.00	\$	500,000.00

Subtotal			\$ 543,140.00
Other Items			
Trailhead Kiosk at Lone Mountain Park	1 EA	\$20,000.00	\$ 20,000.00
Subtotal			\$ 20,000.00
Subtotal Phase I			\$ 1,145,845.00
Contigency 40%			\$ 458,338.00
Total Phase I			\$ 1,604,183.00
Subtotal Phase II			\$ 641,483.00
Contigency 40%			\$ 256,593.20
Total Phase II			\$ 898,076.20
Grand Total			\$ 2,502,259.20

<sup>\*</sup> Phase II item

<sup>\*\*</sup> Culverts under driveways where drainage is required. Assumes about 25% of all driveways will need culverts

## **Estimate of Construction Costs**

Clark County Equestrian Study **South RNP** 

Cougar West Segment         55686 Sq. Ft.         0.16 \$         8,909.76 Culverts**         1 EA         3,000.00 \$         3,000.00 \$         3,000.00 \$         3,000.00 \$         3,000.00 \$         3,000.00 \$         3,000.00 \$         3,000.00 \$         5,500.000.00 \$         3,000.00 \$	Item - By Trail Segment	Quantity	Unit	Unit Cost	Total	
Culverts**         1 EA         3,000.00         \$ 3,000.00           Sign Cap         3 EA         175.00         \$ 525.00           Sign with post         2 EA         375.00         \$ 500.000.00           Signal at Wigwam & Durango         1 EA         500,000.00         \$ 500,000.00           Subtotal         ************************************	Cougar West Segment					
Culverts**         1 EA         3,000.00         \$ 3,000.00           Sign Cap         3 EA         175.00         \$ 525.00           Sign with post         2 EA         375.00         \$ 500.000.00           Signal at Wigwam & Durango         1 EA         500,000.00         \$ 500,000.00           Subtotal         ************************************	-	55686	Sg. Ft.	0.16	\$	8,909.76
Sign Cap         3 EA         175.00         \$ 525.00           Sign with post         2 EA         375.00         \$ 500,000.00           Signal at Wigwam & Durango         1 EA         500,000.00         \$ 500,000.00           Signal at Wigwam & Durango         1 EA         500,000.00         \$ 500,000.00           Cougar East Segment*         T         T         \$ 13,348.64           Culverts**         1 EA         3,000.00         \$ 3,000.00           Sign Cap         3 EA         375.00         \$ 18,014.64           Warbonder         3 EA         375.00         \$ 18,014.64           Warbonnet North Segment*         T         Cade Shoulders         \$ 18,014.64           Culverts**         1 EA         3,000.00         \$ 3,000.00           Sign Cap         2 EA         175.00         \$ 350.00           Sign Cap         2 EA         175.00         \$ 350.00           Sign With post         1 EA         3,000.00         \$ 350.00           Sign Cap         2 EA         175.00         \$ 350.00           Sign Cap         2 EA         175.00         \$ 350.00           Sign Cap         2 EA         175.00         \$ 350.00           Sign Cap         3 EA<	Culverts**		-	3.000.00	\$	
Sign with post         2 EA         375.00         \$ 750.00           Signal at Wigwam & Durango         1 EA         500.000.00         \$ 500.000.00           Subtotal         \$ 513,184.78         \$ 500.000.00         \$ 500.000.00           Cougar East Segment*         \$ 12.00         \$ 13,364.64         \$ 13,364.64           Carde Shoulders         8 3529 Sq. Ft.         0.16         \$ 13,364.64         \$ 12.00         \$ 3,000.00         \$ 3,000.00         \$ 3,000.00         \$ 3,000.00         \$ 3,000.00         \$ 3,000.00         \$ 3,000.00         \$ 3,000.00         \$ 3,000.00         \$ 1,125.00         \$ 3,000.00         \$ 1,125.00						
Signal at Wigwam & Durango         1 EA         500,000.00         \$ 500,000.00           Subtotal         \$ 5013,184.76           Cougar East Segment*         \$ 525,000         \$ 500,000.00         \$ 500,000.00           Couyar East Segment*         1 EA         3,000.00         \$ 3,000.00         \$ 300,000.00         \$ 525,00	•					
Subtotal	•					
Cargar East Sogment*		'	LA	300,000.00		
Grade Shoulders         83529 Sq. Ft.         0.16         \$ 13,346 A6         Culverts***         1 EA         3,000.00         \$ 3,000.00         \$ 3,000.00         \$ 525.00         \$ 3,000.00         \$ 525					Ψ	313,104.70
Culverts**         1 EA         3,000.00         \$ 3,000.00           Sign Cap         3 EA         175.00         \$ 525.00           Sign with post         3 EA         375.00         \$ 1,125.00           Subtotal         ****         18,014.64           Warbornet North Segment*         ****         1 EA         3,000.00         \$ 5,561.92           Culverts**         1 EA         3,000.00         \$ 30,000.00		83529	Sa Ft	0.16	\$	13 364 64
Sign Cap         3 EA         175.00         \$ 525.00           Sign with post         3 EA         375.00         \$ 1,125.00           Subtotal         \$ 18,014.64         ****         \$ 1,125.00           Subtotal         \$ 1,125.00         ****         \$ 1,125.00           Card Shoulders         34762 Sq. Ft.         0.16         \$ 5,561.92           Culverts**         1 EA         3,000.00         \$ 3,000.00           Sign with post         1 EA         375.00         \$ 360.00           Subtotal         ***         \$ 9,286.92           Warbonnet South Segment           Grade Shoulders         34762 Sq. Ft.         0.16         \$ 5,561.92           Culverts**         1 EA         3,000.00         \$ 350.00           Sign Cap         2 EA         175.00         \$ 350.00           Sign With post         1 EA         3,000.00         \$ 350.00           Sign Cap         2 EA         175.00         \$ 328.00           Sign Cap         3 EA         175.00         \$ 5,561.92           Culverts**         1 EA         3,000.00         \$ 3,000.00           Sign Cap         3 EA         175.00         \$ 5,561.92						
Sign with post Subtotal         3 EA         375.00         \$ 1,125.00           Warbonnet North Segment*         Warbonnet North Segment*         Segment*         \$ 1,616.84         \$ 5,661.92           Culverts**         1 EA         3,000.00         \$ 3,000.00         \$ 3,000.00         \$ 360.00 <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>						
Subtotal   Subtotal						
Grade Shoulders         34762 Sq. Ft.         0.16         \$ 5,561.92           Culverts**         1 EA         3,000.00         \$ 3,000.00           Sign Cap         2 EA         175.00         \$ 350.00           Sign with post         1 EA         375.00         \$ 9,286.92           Warbonnet South Segment           Grade Shoulders         34762 Sq. Ft.         0.16         \$ 5,561.92           Culverts**         1 EA         3,000.00         \$ 3,000.00           Sign Cap         2 EA         175.00         \$ 350.00           Sign Cap         2 EA         175.00         \$ 350.00           Sign with post         1 EA         3,000.00         \$ 360.00           Sign Cap         2 EA         175.00         \$ 366.92           Tomisk*           Grade Shoulders         38400 Sq. Ft.         0.16         \$ 6,144.00           Culverts**         1 EA         3,000.00         \$ 3,000.00           Sign with post         2 EA         375.00         \$ 750.00           Subtotal         2 EA         375.00         \$ 750.00           Subtotal         3 EA         175.00         \$ 525.00           Sign Cap         3 EA	•				\$	
Culverts**         1 EA         3,000.00         \$ 3,000.00           Sign Cap         2 EA         175.00         \$ 350.00           Sign with post         1 EA         375.00         \$ 375.00           Subtotal         \$ 9,286.92           Warbonnet South Segment           Grade Shoulders         34762 Sq. Ft.         0.16         \$ 5,561.92           Culverts***         1 EA         3,000.00         \$ 300.00           Sign Cap         2 EA         175.00         \$ 360.00           Sign with post         1 EA         375.00         \$ 375.00           Subtotal         \$ 9,286.92           Tomisk*           Grade Shoulders         38400 Sq. Ft.         0.16         \$ 6,144.00           Culverts***         1 EA         3,000.00         \$ 3,000.00           Sign with post         2 EA         375.00         \$ 255.00           Sign with post         2 EA         375.00         \$ 760.00           Subtotal         47550 Sq. Ft.         0.16         \$ 7,608.00           Subtotal         2 EA         375.00         \$ 7,608.00           Sign Cap         3 EA         175.00         \$ 525.00	Warbonnet North Segment*					
Sign Cap         2 EA         175.00         \$ 350.00           Sign with post         1 EA         375.00         \$ 375.00           Subtotal         \$ 9,286.92           Warbonnet South Segment         \$ 9,286.92           Grade Shoulders         34762 Sq. Ft.         0.16         \$ 5,561.92           Culverts**         1 EA         3,000.00         \$ 300.00           Sign with post         1 EA         375.00         \$ 350.00           Sign with post         1 EA         375.00         \$ 375.00           Subtotal         \$ 9,286.92         \$ 9,286.92           Tomisk*         \$ 1 EA         3,000.00         \$ 375.00           Subtotal         \$ 9,286.92         \$ 9,286.92           Tomisk*         \$ 1 EA         3,000.00         \$ 3,000.00           Sign Cap         3 8400 Sq. Ft.         0.16         \$ 6,144.00           Sign Cap         3 EA         175.00         \$ 525.00           Sign with post         2 EA         375.00         \$ 760.00           Subtotal         \$ 2 EA         375.00         \$ 760.00           Sign Cap         3 EA         175.00         \$ 525.00           Sign Cap         3 EA         175.00         \$ 5	Grade Shoulders	34762	Sq. Ft.	0.16	\$	5,561.92
Sign with post         1 EA         375.00 \$         375.00 \$           Subtotal         \$ 9,286.92           Warbonnet South Segment           Grade Shoulders         34762 Sq. Ft.         0.16 \$ 5,561.92           Culverts**         1 EA         3,000.00 \$ 3,000.00           Sign Cap         2 EA         175.00 \$ 350.00           Sign with post         1 EA         375.00 \$ 375.00           Subtotal         \$ 9,286.92           Tomisk*           Grade Shoulders         38400 Sq. Ft.         0.16 \$ 6,144.00           Culverts**         1 EA         3,000.00 \$ 3,000.00           Sign Cap         3 EA         175.00 \$ 525.00           Sign with post         2 EA         375.00 \$ 750.00           Subtotal         \$ 2 EA         375.00 \$ 750.00           Subtotal         \$ 2 EA         375.00 \$ 750.00           Subtotal           Belcastro*           Grade Shoulders         47550 Sq. Ft.         0.16 \$ 7,608.00           Culverts**         1 EA         3,000.00 \$ 3,000.00           Sign Cap         3 EA         375.00 \$ 1,125.00           Subtotal         \$ 27040 Sq. Ft.         0.16 \$ 4,326.40           S	Culverts**	1	EA	3,000.00	\$	3,000.00
Sign with post         1 EA         375.00 \$         375.00 \$           Subtotal         \$ 9,286.92           Warbonnet South Segment           Grade Shoulders         34762 Sq. Ft.         0.16 \$ 5,561.92           Culverts**         1 EA         3,000.00 \$ 3,000.00           Sign Cap         2 EA         175.00 \$ 350.00           Sign with post         1 EA         375.00 \$ 375.00           Subtotal         \$ 9,286.92           Tomisk*         \$ 9,286.92           Grade Shoulders         38400 Sq. Ft.         0.16 \$ 6,144.00           Culverts***         1 EA         3,000.00 \$ 3,000.00           Sign Cap         3 EA         175.00 \$ 525.00           Sign with post         2 EA         375.00 \$ 750.00           Subtotal         \$ 10,419.00         \$ 10,419.00           Sign with post         2 EA         375.00 \$ 750.00           Subtotal         \$ 10,419.00         \$ 760.00           Subtotal         \$ 10,419.00         \$ 760.00           Subtotal         \$ 1 EA         3,000.00 \$ 3,000.00           Sign Cap         3 EA         375.00 \$ 525.00           Sign with post         3 EA         375.00 \$ 1,125.00           Subt	Sign Cap	2	EA	175.00	\$	350.00
Subtotal         \$ 9,286.92           Warbonnet South Segment           Grade Shoulders         34762 Sq. Ft.         0.16         \$ 5,561.92           Culverts**         1 EA         3,000.00         \$ 3,000.00           Sign Cap         2 EA         175.00         \$ 350.00           Sign with post         1 EA         375.00         \$ 9,286.92           Tomisk*           Grade Shoulders         38400 Sq. Ft.         0.16         \$ 6,144.00           Culverts**         1 EA         3,000.00         \$ 3,000.00           Sign Cap         3 EA         175.00         \$ 525.00           Sign with post         2 EA         375.00         \$ 750.00           Subtotal         2 EA         375.00         \$ 750.00           Subtotal         2 EA         375.00         \$ 750.00           Belcastro*         47550 Sq. Ft.         0.16         \$ 7,608.00           Culverts**         1 EA         3,000.00         \$ 3,000.00           Sign Cap         3 EA         175.00         \$ 525.00           Sign with post         3 EA         375.00         \$ 1,125.00           Raven West Segment*         \$ 27040 Sq. Ft.         0.16         <	-	1	EA	375.00	\$	375.00
Warbonnet South Segment           Grade Shoulders         34762 Sq. Ft.         0.16 \$ 5,561.92           Culverts**         1 EA         3,000.00 \$ 3,000.00           Sign Cap         2 EA         175.00 \$ 350.00           Sign with post         1 EA         375.00 \$ 375.00           Subtotal         \$ 9,286.92           Tomisk*           Grade Shoulders         38400 Sq. Ft.         0.16 \$ 6,144.00           Culverts**         1 EA         3,000.00 \$ 3,000.00           Sign Cap         3 EA         175.00 \$ 525.00           Sign with post         2 EA         375.00 \$ 750.00           Subtotal         \$ 10,419.00           Belcastro*         \$ 10,419.00           Grade Shoulders         47550 Sq. Ft.         0.16 \$ 7,608.00           Culverts**         1 EA         3,000.00 \$ 3,000.00           Sign Cap         3 EA         175.00 \$ 525.00           Sign with post         3 EA         175.00 \$ 525.00           Sign with post         3 EA         375.00 \$ 1,125.00           Subtotal         \$ 27040 Sq. Ft.         0.16 \$ 4,326.40           Sign with post         3 EA         375.00 \$ 1,125.00           Subtotal         \$ 27040 Sq. Ft.         0.					\$	
Grade Shoulders         34762 Sq. Ft.         0.16 \$         \$ 5,561.92           Culverts**         1 EA         3,000.00 \$         3,000.00           Sign Cap         2 EA         175.00 \$         3,50.00           Sign with post         1 EA         375.00 \$         375.00           Subtotal         \$ 9,286.92           Tomisk*           Grade Shoulders         38400 Sq. Ft.         0.16 \$         6,144.00           Culverts**         1 EA         3,000.00 \$         3,000.00           Sign Cap         3 EA         175.00 \$         525.00           Sign with post         2 EA         375.00 \$         750.00           Subtotal         \$ 10,419.00         \$         750.00           Belcastro*           Grade Shoulders         47550 Sq. Ft.         0.16 \$         7,608.00           Culverts***         1 EA         3,000.00 \$         3,000.00           Sign with post         3 EA         175.00 \$         525.00           Sign with post         3 EA         175.00 \$         525.00           Subtotal         \$ 27040 Sq. Ft.         0.16 \$         4,326.40           Sign with post         3 EA         375.00 \$         1,125.00 <td></td> <td></td> <td></td> <td></td> <td>· ·</td> <td>-,</td>					· ·	-,
Culverts**         1 EA         3,000.00         \$ 3,000.00           Sign Cap         2 EA         175.00         \$ 350.00           Sign with post         1 EA         375.00         \$ 375.00           Subtotal         \$ 9,286.92         \$ 9,286.92           Tomisk*         \$ 6,144.00         \$ 9,286.92           Grade Shoulders         38400 Sq. Ft.         0.16         \$ 6,144.00           Culverts**         1 EA         3,000.00         \$ 3,000.00           Sign Cap         3 EA         175.00         \$ 525.00           Sign with post         2 EA         375.00         \$ 750.00           Subtotal         \$ 10,419.00         \$ 750.00           Belcastro*         \$ 10,419.00         \$ 7608.00           Grade Shoulders         47550 Sq. Ft.         0.16         \$ 7,608.00           Culverts**         1 EA         3,000.00         \$ 3,000.00           Sign Cap         3 EA         175.00         \$ 525.00           Sign with post         3 EA         375.00         \$ 1,125.00           Subtotal         \$ 27040 Sq. Ft.         0.16         \$ 4,326.40           Sign with post         3 EA         375.00         \$ 1,125.00           Subtotal<	<del>-</del>	34762	Sa Et	0.16	\$	5 561 92
Sign Cap         2 EA         175.00         \$ 350.00           Sign with post         1 EA         375.00         \$ 375.00           Subtotal         \$ 9,286.92           Tomisk*         \$ 0.16         \$ 6,144.00           Grade Shoulders         38400 Sq. Ft.         0.16         \$ 6,144.00           Culverts**         1 EA         3,000.00         \$ 3,000.00           Sign Cap         3 EA         175.00         \$ 525.00           Sign with post         2 EA         375.00         \$ 750.00           Subtotal         \$ 10,419.00         \$ 750.00           Belcastro*         \$ 10,419.00         \$ 7608.00           Guiverts**         1 EA         3,000.00         \$ 3,000.00           Sign Cap         3 EA         175.00         \$ 525.00           Sign with post         3 EA         175.00         \$ 525.00           Subtotal         \$ 27040 Sq. Ft.         0.16         \$ 4,326.40           Sign with post         3 EA         375.00         \$ 1,125.00           Raven West Segment*         \$ 27040 Sq. Ft.         0.16         \$ 4,326.40           Sign with post         3 EA         375.00         \$ 1,125.00           Raven East Segment <th< td=""><td></td><td></td><td>-</td><td></td><td></td><td>•</td></th<>			-			•
Sign with post         1 EA         375.00         \$ 375.00           Subtotal         \$ 9,286.92           Tomisk*           Grade Shoulders         38400 Sq. Ft.         0.16         \$ 6,144.00           Culverts**         1 EA         3,000.00         \$ 3,000.00           Sign Cap         3 EA         175.00         \$ 525.00           Sign with post         2 EA         375.00         \$ 750.00           Subtotal         \$ 10,419.00           Belcastro*           Grade Shoulders         47550 Sq. Ft.         0.16         \$ 7,608.00           Culverts**         1 EA         3,000.00         \$ 3,000.00           Sign With post         3 EA         175.00         \$ 525.00           Sign with post         3 EA         375.00         \$ 1,125.00           Subtotal         2 7040 Sq. Ft.         0.16         \$ 4,326.40           Sign with post         3 EA         375.00         \$ 1,125.00           Subtotal         2 7040 Sq. Ft.         0.16         \$ 4,326.40           Sign with post         3 EA         375.00         \$ 1,125.00           Raven East Segment         \$ 5451.40           Grade Shoulders<				·		
Subtotal         \$ 9,286.92           Tomisk*         Grade Shoulders         38400 Sq. Ft.         0.16 \$ 6,144.00           Culverts***         1 EA         3,000.00 \$ 3,000.00         3,000.00           Sign Cap         3 EA         175.00 \$ 525.00         525.00           Sign with post         2 EA         375.00 \$ 750.00         500.00           Belcastro*         Grade Shoulders         47550 Sq. Ft.         0.16 \$ 7,608.00         7,608.00         0.00						
Tomisk*         Grade Shoulders         38400 Sq. Ft.         0.16 \$ 6,144.00           Culverts***         1 EA         3,000.00 \$ 3,000.00           Sign Cap         3 EA         175.00 \$ 525.00           Sign with post         2 EA         375.00 \$ 750.00           Subtotal         \$ 10,419.00           Belcastro*         \$ 10,419.00           Grade Shoulders         47550 Sq. Ft.         0.16 \$ 7,608.00           Culverts***         1 EA         3,000.00 \$ 3,000.00           Sign Cap         3 EA         175.00 \$ 525.00           Sign with post         3 EA         175.00 \$ 525.00           Subtotal         \$ 12,258.00           Raven West Segment*         \$ 12,258.00           Grade Shoulders         27040 Sq. Ft.         0.16 \$ 4,326.40           Sign with post         3 EA         375.00 \$ 1,125.00           Subtotal         \$ 27040 Sq. Ft.         0.16 \$ 4,326.40           Sign with post         3 EA         375.00 \$ 1,125.00           Subtotal         \$ 54,451.40           Raven East Segment         \$ 54075 Sq. Ft.         0.16 \$ 8,652.00           Culverts**         1 EA         3,000.00 \$ 3,000.00           Sign Cap         3 EA         175.00 \$ 525.00	•	1	EA	375.00		
Grade Shoulders       38400 Sq. Ft.       0.16 \$ 6,144.00         Culverts**       1 EA       3,000.00 \$ 3,000.00         Sign Cap       3 EA       175.00 \$ 525.00         Sign with post       2 EA       375.00 \$ 750.00         Subtotal       \$ 10,419.00         Belcastro*       \$ 10,419.00         Grade Shoulders       47550 Sq. Ft.       0.16 \$ 7,608.00         Culverts**       1 EA       3,000.00 \$ 3,000.00         Sign Cap       3 EA       175.00 \$ 525.00         Sign with post       3 EA       375.00 \$ 1,125.00         Subtotal       \$ 12,258.00         Raven West Segment*       \$ 27040 Sq. Ft.       0.16 \$ 4,326.40         Sign with post       3 EA       375.00 \$ 1,125.00         Subtotal       \$ 5,451.40         Raven East Segment         Grade Shoulders       54075 Sq. Ft.       0.16 \$ 8,652.00         Culverts**       1 EA       3,000.00 \$ 3,000.00         Sign Cap       3 EA       175.00 \$ 525.00         Sign with post       2 EA       375.00 \$ 750.00					\$	9,286.92
Culverts**         1 EA         3,000.00         \$ 3,000.00           Sign Cap         3 EA         175.00         \$ 525.00           Sign with post         2 EA         375.00         \$ 750.00           Subtotal         \$ 10,419.00           Belcastro*         \$ 10,419.00           Grade Shoulders         47550 Sq. Ft.         0.16         \$ 7,608.00           Culverts**         1 EA         3,000.00         \$ 3,000.00           Sign Cap         3 EA         175.00         \$ 525.00           Sign with post         3 EA         375.00         \$ 1,125.00           Raven West Segment*         \$ 27040 Sq. Ft.         0.16         \$ 4,326.40           Sign with post         3 EA         375.00         \$ 1,125.00           Subtotal         \$ 3 EA         375.00         \$ 1,125.00           Subtotal         \$ 54075 Sq. Ft.         0.16         \$ 8,652.00           Culverts**         1 EA         3,000.00         \$ 3,000.00           Sign Cap         3 EA         175.00         \$ 3,000.00           Sign with post         2 EA         375.00         \$ 750.00			_			
Sign Cap       3 EA       175.00 \$       525.00         Sign with post       2 EA       375.00 \$       750.00         Subtotal       \$ 10,419.00         Belcastro*       \$ 10,419.00         Grade Shoulders       47550 Sq. Ft.       0.16 \$       7,608.00         Culverts**       1 EA       3,000.00 \$       3,000.00         Sign Cap       3 EA       175.00 \$       525.00         Sign with post       3 EA       375.00 \$       1,125.00         Subtotal       \$ 12,258.00         Raven West Segment*       \$ 27040 Sq. Ft.       0.16 \$       4,326.40         Sign with post       3 EA       375.00 \$       1,125.00         Subtotal       \$ 5,451.40         Raven East Segment       \$ 5,451.40         Grade Shoulders       \$ 54075 Sq. Ft.       0.16 \$       8,652.00         Culverts**       1 EA       3,000.00 \$       3,000.00         Sign Cap       3 EA       175.00 \$       525.00         Sign with post       2 EA       375.00 \$       750.00			-			
Sign with post         2 EA         375.00 \$         750.00           Subtotal         \$ 10,419.00           Belcastro*         \$ 10,419.00           Grade Shoulders         47550 Sq. Ft.         0.16 \$ 7,608.00           Culverts**         1 EA         3,000.00 \$ 3,000.00           Sign Cap         3 EA         175.00 \$ 525.00           Sign with post         3 EA         375.00 \$ 1,125.00           Subtotal         \$ 12,258.00           Raven West Segment*         \$ 27040 Sq. Ft.         0.16 \$ 4,326.40           Sign with post         3 EA         375.00 \$ 1,125.00           Subtotal         \$ 5,451.40           Raven East Segment         \$ 5,451.40           Grade Shoulders         \$ 54075 Sq. Ft.         0.16 \$ 8,652.00           Culverts**         1 EA         3,000.00 \$ 3,000.00           Sign Cap         3 EA         175.00 \$ 525.00           Sign with post         2 EA         375.00 \$ 750.00	Culverts**			3,000.00	\$	3,000.00
Subtotal       \$ 10,419.00         Belcastro*       Grade Shoulders       47550 Sq. Ft.       0.16 \$ 7,608.00         Culverts**       1 EA       3,000.00 \$ 3,000.00       3 EA       175.00 \$ 525.00       525.00       Sign with post       3 EA       375.00 \$ 1,125.00       Subtotal       \$ 12,258.00         Raven West Segment*         Grade Shoulders       27040 Sq. Ft.       0.16 \$ 4,326.40       4,326.40         Sign with post       3 EA       375.00 \$ 1,125.00       3 1,125.00         Subtotal       \$ 5,451.40         Raven East Segment       54075 Sq. Ft.       0.16 \$ 8,652.00       8,652.00         Culverts**       1 EA       3,000.00 \$ 3,000.00       3,000.00         Sign Cap       3 EA       175.00 \$ 525.00         Sign with post       2 EA       375.00 \$ 750.00	Sign Cap	3	EA	175.00	\$	525.00
Belcastro*         47550 Sq. Ft.         0.16 \$ 7,608.00           Culverts***         1 EA         3,000.00 \$ 3,000.00           Sign Cap         3 EA         175.00 \$ 525.00           Sign with post         3 EA         375.00 \$ 1,125.00           Subtotal         \$ 12,258.00           Raven West Segment*         \$ 12,258.00           Grade Shoulders         27040 Sq. Ft.         0.16 \$ 4,326.40           Sign with post         3 EA         375.00 \$ 1,125.00           Subtotal         \$ 5,451.40           Raven East Segment         \$ 5,451.40           Grade Shoulders         54075 Sq. Ft.         0.16 \$ 8,652.00           Culverts**         1 EA         3,000.00 \$ 3,000.00           Sign Cap         3 EA         175.00 \$ 525.00           Sign with post         2 EA         375.00 \$ 750.00	Sign with post	2	EA	375.00	\$	750.00
Grade Shoulders       47550 Sq. Ft.       0.16 \$ 7,608.00         Culverts**       1 EA       3,000.00 \$ 3,000.00         Sign Cap       3 EA       175.00 \$ 525.00         Sign with post       3 EA       375.00 \$ 1,125.00         Subtotal       \$ 12,258.00         Raven West Segment*       \$ 27040 Sq. Ft.       0.16 \$ 4,326.40         Sign with post       3 EA       375.00 \$ 1,125.00         Subtotal       \$ 5,451.40         Raven East Segment       \$ 5,4075 Sq. Ft.       0.16 \$ 8,652.00         Culverts**       1 EA       3,000.00 \$ 3,000.00         Sign Cap       3 EA       175.00 \$ 525.00         Sign with post       2 EA       375.00 \$ 750.00	Subtotal				\$	10,419.00
Culverts**       1 EA       3,000.00 \$       3,000.00         Sign Cap       3 EA       175.00 \$       525.00         Sign with post       3 EA       375.00 \$       1,125.00         Raven West Segment*         Grade Shoulders       27040 Sq. Ft.       0.16 \$       4,326.40         Sign with post       3 EA       375.00 \$       1,125.00         Subtotal       \$ 5,451.40         Raven East Segment       \$ 54075 Sq. Ft.       0.16 \$       8,652.00         Culverts**       1 EA       3,000.00 \$       3,000.00         Sign Cap       3 EA       175.00 \$       525.00         Sign with post       2 EA       375.00 \$       750.00	Belcastro*					
Culverts**       1 EA       3,000.00 \$       3,000.00         Sign Cap       3 EA       175.00 \$       525.00         Sign with post       3 EA       375.00 \$       1,125.00         Raven West Segment*         Grade Shoulders       27040 Sq. Ft.       0.16 \$       4,326.40         Sign with post       3 EA       375.00 \$       1,125.00         Subtotal       \$ 5,451.40         Raven East Segment       \$ 54075 Sq. Ft.       0.16 \$       8,652.00         Culverts**       1 EA       3,000.00 \$       3,000.00         Sign Cap       3 EA       175.00 \$       525.00         Sign with post       2 EA       375.00 \$       750.00	Grade Shoulders	47550	Sq. Ft.	0.16	\$	7,608.00
Sign Cap       3 EA       175.00 \$       525.00         Sign with post       3 EA       375.00 \$       1,125.00         Subtotal       \$ 12,258.00         Raven West Segment*       \$ 12,258.00         Grade Shoulders       27040 Sq. Ft.       0.16 \$       4,326.40         Sign with post       3 EA       375.00 \$       1,125.00         Subtotal       \$ 5,451.40         Raven East Segment         Grade Shoulders       54075 Sq. Ft.       0.16 \$       8,652.00         Culverts**       1 EA       3,000.00 \$       3,000.00         Sign Cap       3 EA       175.00 \$       525.00         Sign with post       2 EA       375.00 \$       750.00	Culverts**			3,000.00	\$	3,000.00
Sign with post       3 EA       375.00 \$ 1,125.00         Subtotal       \$ 12,258.00         Raven West Segment*       \$ 12,258.00         Grade Shoulders       27040 Sq. Ft.       0.16 \$ 4,326.40         Sign with post       3 EA       375.00 \$ 1,125.00         Subtotal       \$ 5,451.40         Raven East Segment       \$ 54075 Sq. Ft.       0.16 \$ 8,652.00         Culverts**       1 EA       3,000.00 \$ 3,000.00         Sign Cap       3 EA       175.00 \$ 525.00         Sign with post       2 EA       375.00 \$ 750.00		3	EA	•		
Subtotal       \$ 12,258.00         Raven West Segment*         Grade Shoulders       27040 Sq. Ft.       0.16 \$ 4,326.40         Sign with post       3 EA       375.00 \$ 1,125.00         Subtotal       \$ 5,451.40         Raven East Segment       Sq. Ft.       0.16 \$ 8,652.00         Culverts**       1 EA       3,000.00 \$ 3,000.00         Sign Cap       3 EA       175.00 \$ 525.00         Sign with post       2 EA       375.00 \$ 750.00	-	3	FA			
Raven West Segment*         Grade Shoulders       27040 Sq. Ft.       0.16 \$ 4,326.40         Sign with post       3 EA       375.00 \$ 1,125.00         Subtotal       \$ 5,451.40         Raven East Segment       54075 Sq. Ft.       0.16 \$ 8,652.00         Culverts**       1 EA       3,000.00 \$ 3,000.00         Sign Cap       3 EA       175.00 \$ 525.00         Sign with post       2 EA       375.00 \$ 750.00				010.00		
Grade Shoulders       27040 Sq. Ft.       0.16 \$ 4,326.40         Sign with post       3 EA       375.00 \$ 1,125.00         Subtotal       \$ 5,451.40         Raven East Segment         Grade Shoulders       54075 Sq. Ft.       0.16 \$ 8,652.00         Culverts**       1 EA       3,000.00 \$ 3,000.00         Sign Cap       3 EA       175.00 \$ 525.00         Sign with post       2 EA       375.00 \$ 750.00					Ψ	12,200.00
Sign with post       3 EA       375.00 \$ 1,125.00         Subtotal       \$ 5,451.40         Raven East Segment       \$ 54075 Sq. Ft.       0.16 \$ 8,652.00         Culverts**       1 EA       3,000.00 \$ 3,000.00         Sign Cap       3 EA       175.00 \$ 525.00         Sign with post       2 EA       375.00 \$ 750.00		27040	Sa Et	0.16	<b>c</b>	4 226 40
Subtotal       \$ 5,451.40         Raven East Segment         Grade Shoulders       54075 Sq. Ft.       0.16 \$ 8,652.00         Culverts**       1 EA       3,000.00 \$ 3,000.00         Sign Cap       3 EA       175.00 \$ 525.00         Sign with post       2 EA       375.00 \$ 750.00			•			
Raven East Segment           Grade Shoulders         54075 Sq. Ft.         0.16 \$ 8,652.00           Culverts**         1 EA 3,000.00 \$ 3,000.00           Sign Cap         3 EA 175.00 \$ 525.00           Sign with post         2 EA 375.00 \$ 750.00		3	EA	375.00		
Grade Shoulders         54075 Sq. Ft.         0.16 \$ 8,652.00           Culverts**         1 EA 3,000.00 \$ 3,000.00           Sign Cap         3 EA 175.00 \$ 525.00           Sign with post         2 EA 375.00 \$ 750.00					\$	5,451.40
Culverts**       1 EA       3,000.00 \$ 3,000.00         Sign Cap       3 EA       175.00 \$ 525.00         Sign with post       2 EA       375.00 \$ 750.00	_					
Sign Cap       3 EA       175.00 \$ 525.00         Sign with post       2 EA       375.00 \$ 750.00			-			8,652.00
Sign with post 2 EA 375.00 \$ 750.00	Culverts**			3,000.00	\$	
•	Sign Cap	3	EA	175.00	\$	525.00
Trailhead Network Sign 1 EA 500.00 \$ 500.00	Sign with post	2	EA	375.00	\$	750.00
	Trailhead Network Sign	1	EA	500.00	\$	500.00

Subtotal			\$ 13,427.00
Agate*			
Grade Shoulders	27040 Sq. Ft.	0.16	\$ 4,326.40
Culverts**	1 EA	3,000.00	\$ 3,000.00
Sign Cap	2 EA	175.00	\$ 350.00
Sign with post	2 EA	375.00	\$ 750.00
Subtotal			\$ 8,426.40
Monte Cristo-Belcastro			
Grade Shoulders	73950 Sq. Ft.	0.16	\$ 11,832.00
Culverts**	1 EA	3,000.00	\$ 3,000.00
Sign Cap	4 EA	175.00	\$ 700.00
Sign with post	4 EA	375.00	\$ 1,500.00
Trailhead Network Sign	1 EA	500.00	\$ 500.00
Subtotal			\$ 17,532.00
LeBaron			
Grade Trail	79005 Sq. Ft.	0.16	\$ 12,640.80
Sign Cap	3 EA	175.00	\$ 525.00
Sign with post	4 EA	375.00	\$ 1,500.00
Subtotal			\$ 14,665.80
South Perimiter*			
Grade Shoulders	94845 Sq. Ft.	0.16	\$ 15,175.20
Culverts**	1 EA	3,000.00	\$ 3,000.00
Sign Cap	2 EA	175.00	\$ 350.00
Sign with post	6 EA	375.00	\$ 2,250.00
Subtotal			\$ 20,775.20
Other Items			
Trailhead Kiosk west of Durango & Wigwam*	1 EA	\$20,000.00	\$ 20,000.00
Trailhead Kiosk at New Equestrain Park*	1 EA	\$20,000.00	\$ 20,000.00
Bridge Across Blue Diamond	1 EA	\$4,000,000.00	\$ 4,000,000.00
Subtotal			\$ 4,040,000.00
Subtotal Phase I			\$ 568,096.48
Contigency 40%			\$ 227,238.59
Total Phase I			\$ 795,335.07
Subtotal Phase II			\$ 124,631.56
Contigency 40%			\$ 49,852.62
Total Phase II			\$ 174,484.18
Bridge Crossing			\$ 4,000,000.00
Contingency 40%			\$ 1,600,000.00
Total Bridge Crossing			\$ 5,600,000.00
Grand Total			\$ 6,569,819.26
* Phaco II itom			

<sup>\*</sup> Phase II item

<sup>\*\*</sup> Culverts under driveways where drainage is required. Assumes about 25% of all driveways will need culverts

Equestrian Trail Study, Clark County Nevada

Appendix D

Stakeholder Meetings

# **Stakeholder Meetings**

### Meeting with members of the Southwest Action Network(SWAN)

1/24/07

Location: Allen Residence

Sue Allen SWAN President

Erin Roher-Larkin Resident
David Mason Resident

Mike Rose Alta Planning + Design

Items discussed:

Mike Rose outlined the process of the study for the group. Emphasizing that we are still in the first phase and that the results of the survey will determine what level of plan if, if any, will come from the process.

Residents from the southern RNP and SWAN at the meeting explained their concerns desires and past experience with the County. Some key issues were:

- Desire for trails in the Southern RNP
- Frustration with lack of action by the Clark County
- The need to connect to public lands beyond the RNP
- Loss of potential trail routes due to development
- Barriers in the area such as a widening Durango St. and Blue Diamond Highway
- Development plans of the Focus Property Group (Mountain's Edge Community)

### Field Day with RNP Residents

2/21/07

Location: Various locations around the project area

Sue Allen SWAN President

Erin Roher-Larkin Resident
David Mason Resident
Ellis Greene Resident

Ed Dodrill SNRTP President

Mike Rose Alta Planning + Design George Hudson Alta Planning + Design

Items Discussed:

#### South RNP

Residents in the Southern RNP provided Alta with maps showing preferred trail routes in their RNP, highlighted constraints and desirable destinations.

#### **Constraints:**

- 1. Wigwam Road High traffic street, dangerous for riders
- 2. Blue Diamond Road Impossible to cross, most significant barrier in the area
- 3. Durango Road High traffic street, very difficult to cross.

### **Destinations/Opportunites:**

- 1. Blue Diamond Wash Link westward to public lands
- 2. Existing trail on Buffalo Link south to public lands

# Residents took Alta Staff to key points in the RNP to show these issues. These areas included:

- 1. Intersection of Wigwam and Durango
- 2. Flood Control facility west of Durango
- 3. A trail parallel to LeBaron that was intended to be designed for equestrian use, but was paved with concrete and does not serve the intended use
- 4. Existing trail along Buffalo
- 5. Discussion of trail surface materials

#### Northern RNP Areas

Residents in the Northern RNP areas spent time with Alta Staff looking at site maps to discuss potential equestrian trail alignments and identify opportunities and constraints

#### **Constraints:**

- 1. The I-215 Beltway Significant barrier, difficult to cross
- 2. Section line streets like Lone Mountain high traffic, difficult to cross
- 3. Rough road shoulders difficult footing and dangerous for horses

### **Destinations/Opportunities:**

- 1. Lone Mountain Park Final build out of the park includes equestrian trails
- 2. Bridge over I-215 at Alexander Access to public lands to the west
- 3. Signalized Crossing at Ann and I-215 Access to public lands to the west
- 4. Bridge over I-215at Hualapai Access to public lands to the north
- 5. Under crossing of I-95 Access across the highway

# Residents took Alta Staff to key points in the RNP area to show these issues. These areas included:

- 1. Lone Mountain Park
- 2. Bridge over I-215 at Alexander
- 3. Signalized Crossing at Ann and I-215
- 4. Under crossing of I-95
- 5. Intersection of Torrey Pines and Whispering Sands
- 6. A few existing trails in the City of Las Vegas

### Meeting with Bureau of Land Management (BLM)

3/7/07

Location: BLM offices

Robert Wandell Bureau of Land Management

Mike Rose Alta Planning + Design George Hudson Alta Planning + Design

Item Discussed:

Equestrian use is allowed in BLM lands and is compatible with current plans.

Illegal use of the lands by off-road vehicles is an ongoing issue, and BLM does not have the manpower for enforcement

Dedication of easement is something BLM is unwilling to do because of the uncertainty of the future land sales in the valley. Plans change quickly and these easements may not be compatible with future plans but equestrian use is currently permitted and there are no plans to change that.

### Meeting with Nevada Department of Transportation (NDOT)

3/5/07

Location: Via Telephone

Kent Sears NDOT Mark Elicegui NDOT

Mike Rose Alta Planning + Design

Items Discussed:

A pedestrian crossing at Blue Diamond would be acceptable as long as it meets the requirements and standards of NDOT

The bridge must have 18'-6" of vertical clearance

Proposed location for the new bridge is outside of the minimum distance from the intersection at Buffalo and Blue Diamond

Details of the bridge including rails, fencing, support structure etc. must meet NDOT requirements.

### Meeting with Clark County Regional Flood Control District (CCRFCD)

3/5/07

Location: Via Telephone

Kevin Eubanks Clark County Regional Flood Control District

Mike Rose Alta Planning + Design

Items Discussed:

The use of flood control district facilities for recreational purposes is an allowed use. Users must be made aware of the dangers of flash flooding and evacuate the facilities when there is danger of a flood event.

Specifically the use of the Blue Diamond Wash area and the Gowan Drainage for equestrian trails is acceptable.

### Meeting with City of Las Vegas

3/6/07

Location: Via Telephone

Connie Diso City of Las Vegas, Public Works

Mike Rose Alta Planning + Design

Items discussed:

Ms. Moen was not aware of any significant issues with regard to excess cost or maintenance time required by City maintenance staff for the existing equestrian trails within the City.

### Meeting with Focus Property Group/Landtek

3/6/07

Location: Via Telephone

John Holden Senior VP

David Browning Project Manager

Mike Rose Alta Planning + Design George Hudson Alta Planning + Design

Items Discussed:

Landtek does most of the design and planning for the Focus Property Group which is the developer of the Mountain's Edge Community near the south RNP.

There will not be a signalized crossing for equestrian at Buffalo and Blue Diamond.

The plans do call for an equestrian trail from LeBaron and Buffalo and south into a future park. The first portion of the equestrian trail is built and the plan is to complete the remaining portion.

The master plan does show a buffer/easement around the east and northern perimeter of the existing RNP for equestrian trail use.

David Browning will send a follow-up email with the specifications for the trail surface they are using for the equestrian trails at Mountain's Edge

# Meeting with Kummer Kaempfer Bonner Renshaw & Ferrario Attorneys at Law

4/25/07

Location: Via Telephone

Elizabeth Sorokac Kummer Kaempfer

Mike Rose Alta Planning + Design

Items Discussed:

Kummer Kaempfer represents the focus property group and they have concerns about the location of the bridge across Blue Diamond Road. The bridge is shown crossing a piece of property owned by the Focus Property Group and they would like to see the bridge aligned along the outside edge of the property line.

Alta evaluated the proposed alternative and came to the conclusion that the change had no significant impact of the overall plan and realigned the bridge to avoid the property.